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OM protein - protein search, using sw model

Run on: April 19, 2005, 14:43:54 ; Search time 51 Seconds  
(without alignments)  
149.893 Million cell updates/sec

Title: US-10-665-184-24

Perfect score: 114

Sequence: 1 NYFLVNLAFARASMAAFNTVNF 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1421835 seqs, 332370683 residues

Total number of hits satisfying chosen parameters: 1421835

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Published Applications AA:\*

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- 2: /cgn2\_6/ptodata/2/pubpa/PCT\_NEW\_PUB.pep.\*
- 3: /cgn2\_6/ptodata/2/pubpa/US06\_NEW\_PUB.pep.\*
- 4: /cgn2\_6/ptodata/2/pubpa/US06\_PUBCOMB.pep.\*
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- 11: /cgn2\_6/ptodata/2/pubpa/US09C\_PUBCOMB.pep.\*
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- 13: /cgn2\_6/ptodata/2/pubpa/US10A\_PUBCOMB.pep.\*
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- 16: /cgn2\_6/ptodata/2/pubpa/US10D\_PUBCOMB.pep.\*
- 17: /cgn2\_6/ptodata/2/pubpa/US10\_NEW\_PUB.pep.\*
- 18: /cgn2\_6/ptodata/2/pubpa/US11\_NEW\_PUB.pep.\*
- 19: /cgn2\_6/ptodata/2/pubpa/US60\_NEW\_PUB.pep.\*
- 20: /cgn2\_6/ptodata/2/pubpa/US60\_PUBCOMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	114	100.0	311	10	US-09-930-503-1
2	114	100.0	311	10	US-09-930-503-3
3	114	100.0	407	10	US-09-930-503-5
4	114	100.0	407	10	US-09-930-503-7
5	114	100.0	407	10	US-09-826-509-525
6	114	100.0	407	14	US-10-005-956-14
7	114	100.0	407	14	US-10-005-956-16
8	114	100.0	407	14	US-10-005-956-18
9	114	100.0	407	14	US-10-005-956-20
10	114	100.0	407	14	US-10-005-956-292
11	114	100.0	407	14	US-10-225-567A-322
12	114	100.0	407	17	US-10-925-095-525
13	111	97.4	410	14	US-10-254-905-8

14	111	97.4	411	10	US-09-966-782A-8
15	109	95.6	372	10	US-09-443-745-20
16	105	92.1	465	10	US-09-826-509-529
17	105	92.1	465	14	US-10-325-567A-197
18	105	92.1	465	17	US-10-925-095-529
19	105	92.1	488	13	US-10-029-009-9
20	105	92.1	505	13	US-10-029-009-21
21	100	87.7	411	10	US-09-443-745-21
22	85	74.6	436	14	US-10-254-905-7
23	85	74.6	440	10	US-09-966-782A-7
24	85	74.6	440	14	US-10-325-567A-545
25	83	72.8	138	14	US-10-029-386-32429
26	79	69.3	313	14	US-10-060-795B-7
27	79	69.3	398	10	US-09-826-509-527
28	79	69.3	398	14	US-10-325-567A-456
29	79	69.3	398	14	US-10-160-358-3
30	79	69.3	398	15	US-10-292-798-648
31	79	69.3	398	17	US-10-925-095-527
32	79	69.3	488	14	US-10-017-161-742
33	78	68.4	369	10	US-09-443-745-19
34	65	57.0	391	15	US-10-369-493-6009
35	62	54.4	519	14	US-10-283-423-10
36	62	54.4	519	14	US-10-213-821-10
37	62	54.4	519	16	US-10-736-048-10
38	62	54.4	522	14	US-10-283-423-12
39	62	54.4	522	14	US-10-213-821-12
40	62	54.4	522	16	US-10-736-048-12
41	59	51.8	374	15	US-10-369-493-5833
42	51	44.7	435	14	US-10-156-761-11512
43	51	44.7	501	9	US-09-951-622-9
44	51	44.7	501	14	US-10-325-930-9
45	51	44.7	501	14	US-10-238-129-7

#### ALIGNMENTS

##### RESULT 1

US-09-930-503-1  
; Sequence 1, Application US/09930503  
; Publication No. US20030060438A1  
; GENERAL INFORMATION:  
; APPLICANT: HENRY, JAMES  
; APPLICANT: CAHILL, CATHERINE  
; APPLICANT: YASHPAL, KIRAN  
; TITLE OF INVENTION: APPLICATION OF ANTI-SENSE OLIGONUCLEOTIDES AND  
; TITLE OF INVENTION: THERAPEUTIC USES THEREOF  
; FILE REFERENCE: 39245-173913  
; CURRENT APPLICATION NUMBER: US/09/930,503  
; CURRENT FILING DATE: 2001-08-16  
; PRIOR APPLICATION NUMBER: 60/226,086  
; PRIOR FILING DATE: 2000-08-18  
; NUMBER OF SEQ ID NOS: 59  
; SOFTWARE: Patent in Ver. 2.1  
; SEQ ID NO 1  
; LENGTH: 311  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-09-930-503-1

Query Match 100.0%; Score 114; DB 10; Length 311;  
Best Local Similarity 100.0%; Pred. No. 6.6e-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFARASMAAFNTVNF 23

Db 68 NYFLVNLAFARASMAAFNTVNF 90

##### RESULT 2

US-09-930-503-3  
; Sequence 3, Application US/09930503  
; Publication No. US20030060438A1

```
; GENERAL INFORMATION:
; APPLICANT: HENRY, JAMES
; APPLICANT: CAHILL, CATHERINE
; APPLICANT: YASHPAL, KIRAN
; TITLE OF INVENTION: APPLICATION OF ANTI-SENSE OLIGONUCLEOTIDES AND
; FILE REFERENCE: 39245-173913
; CURRENT APPLICATION NUMBER: US/09/930,503
; CURRENT FILING DATE: 2001-08-16
; PRIOR APPLICATION NUMBER: 60/226,086
; PRIOR FILING DATE: 2000-08-18
; NUMBER OF SEQ ID NOS: 59
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 407
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-930-503-3

; Query Match          100.0%; Score 114; DB 10; Length 311;
; Best Local Similarity 100.0%; Pred. No. 6.6e-10;
; Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

.QY      1 NYFLVNLAFAEASMAAFNTVVNF 23
         |||||
Db       68 NYFLVNLAFAEASMAAFNTVVNF 90

RESULT 3
US-09-930-503-5
; Sequence 5, Application US/09930503
; Publication No. US20030060438A1
; GENERAL INFORMATION:
; APPLICANT: HENRY, JAMES
; APPLICANT: CAHILL, CATHERINE
; APPLICANT: YASHPAL, KIRAN
; TITLE OF INVENTION: APPLICATION OF ANTI-SENSE OLIGONUCLEOTIDES AND
; FILE REFERENCE: 39245-173913
; CURRENT APPLICATION NUMBER: US/09/930,503
; CURRENT FILING DATE: 2001-08-16
; PRIOR APPLICATION NUMBER: 60/226,086
; PRIOR FILING DATE: 2000-08-18
; NUMBER OF SEQ ID NOS: 59
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 5
; LENGTH: 407
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-930-503-5

; Query Match          100.0%; Score 114; DB 10; Length 407;
; Best Local Similarity 100.0%; Pred. No. 8.9e-10;
; Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYFLVNLAFAEASMAAFNTVVNF 23
         |||||
Db       68 NYFLVNLAFAEASMAAFNTVVNF 90

RESULT 4
US-09-930-503-7
; Sequence 7, Application US/09930503
; Publication No. US20030060438A1
; GENERAL INFORMATION:
; APPLICANT: HENRY, JAMES
; APPLICANT: CAHILL, CATHERINE
; APPLICANT: YASHPAL, KIRAN
; TITLE OF INVENTION: APPLICATION OF ANTI-SENSE OLIGONUCLEOTIDES AND
; FILE REFERENCE: 39245-173913
; CURRENT APPLICATION NUMBER: US/09/930,503
; CURRENT FILING DATE: 2001-08-16
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; PRIOR APPLICATION NUMBER: 60/226,086
; PRIOR FILING DATE: 2000-08-18
; NUMBER OF SEQ ID NOS: 59
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
; LENGTH: 407
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-930-503-7

; Query Match          100.0%; Score 114; DB 10; Length 407;
; Best Local Similarity 100.0%; Pred. No. 8.9e-10;
; Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYFLVNLAFAEASMAAFNTVVNF 23
         |||||
Db       68 NYFLVNLAFAEASMAAFNTVVNF 90

RESULT 5
US-09-826-509-525
; Sequence 525, Application US/09826509
; Publication No. US20030204073A1
; GENERAL INFORMATION:
; APPLICANT: Lehmann-Bruinsma, Karin
; APPLICANT: Liaw, Chen W.
; APPLICANT: Lin, I-Lin
; TITLE OF INVENTION: No. US20030204073A1-Endogenous, Constitutively Activated Known G
; FILE REFERENCE: AREN-207
; CURRENT APPLICATION NUMBER: US/09/826,509
; CURRENT FILING DATE: 2001-04-05
; PRIOR APPLICATION NUMBER: 60/195,747
; PRIOR FILING DATE: 2000-04-07
; PRIOR APPLICATION NUMBER: 09/170,496
; PRIOR FILING DATE: 1998-10-13
; NUMBER OF SEQ ID NOS: 589
; SOFTWARE: PatentIn Version 2.1
; SEQ ID NO 525
; LENGTH: 407
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-826-509-525

; Query Match          100.0%; Score 114; DB 10; Length 407;
; Best Local Similarity 100.0%; Pred. No. 8.9e-10;
; Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 NYFLVNLAFAEASMAAFNTVVNF 23
         |||||
Db       68 NYFLVNLAFAEASMAAFNTVVNF 90

RESULT 6
US-10-005-956-14
; Sequence 14, Application US/10005956
; Publication No. US20030113726A1
; GENERAL INFORMATION:
; APPLICANT: Bristol-Myers Squibb Company
; TITLE OF INVENTION: HUMAN SINGLE NUCLEOTIDE POLYMORPHISMS
; FILE REFERENCE: D0053NP
; CURRENT APPLICATION NUMBER: US/10/005,956
; CURRENT FILING DATE: 2001-12-03
; PRIOR APPLICATION NUMBER: 60/251,015
; PRIOR FILING DATE: 2000-12-04
; PRIOR APPLICATION NUMBER: 60/263,678
; PRIOR FILING DATE: 2001-01-23
; PRIOR APPLICATION NUMBER: 60/273,037
; PRIOR FILING DATE: 2001-03-02
; NUMBER OF SEQ ID NOS: 1579
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 14
; LENGTH: 407
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! TYPE: PRT  
! ORGANISM: homo sapiens  
US-10-005-956-14

Query Match 100.0%; Score 114; DB 14; Length 407;  
Best Local Similarity 100.0%; Pred. No. 8.9e-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFASMAAFNTVNF 23  
Db 68 NYFLVNLAFASMAAFNTVNF 90

## RESULT 7

US-10-005-956-16  
! Sequence 16, Application US/10005956  
! Publication No. US20030113726A1  
! GENERAL INFORMATION:  
! APPLICANT: Bristol-Myers Squibb Company  
! TITLE OF INVENTION: HUMAN SINGLE NUCLEOTIDE POLYMORPHISMS  
! FILE REFERENCE: D0053NP  
! CURRENT APPLICATION NUMBER: US/10/005,956  
! PRIOR FILING DATE: 2001-12-03  
! PRIOR APPLICATION NUMBER: 60/251,015  
! PRIOR FILING DATE: 2000-12-04  
! PRIOR APPLICATION NUMBER: 60/263,678  
! PRIOR FILING DATE: 2001-01-23  
! PRIOR APPLICATION NUMBER: 60/273,037  
! PRIOR FILING DATE: 2001-03-02  
! NUMBER OF SEQ ID NOS: 1579  
! SOFTWARE: PatentIn version 3.0  
! SEQ ID NO 16  
! LENGTH: 407  
! TYPE: PRT  
! ORGANISM: homo sapiens  
US-10-005-956-16

Query Match 100.0%; Score 114; DB 14; Length 407;  
Best Local Similarity 100.0%; Pred. No. 8.9e-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFASMAAFNTVNF 23  
Db 68 NYFLVNLAFASMAAFNTVNF 90

## RESULT 8

US-10-005-956-18  
! Sequence 18, Application US/10005956  
! Publication No. US20030113726A1  
! GENERAL INFORMATION:  
! APPLICANT: Bristol-Myers Squibb Company  
! TITLE OF INVENTION: HUMAN SINGLE NUCLEOTIDE POLYMORPHISMS  
! FILE REFERENCE: D0053NP  
! CURRENT APPLICATION NUMBER: US/10/005,956  
! PRIOR FILING DATE: 2001-12-03  
! PRIOR APPLICATION NUMBER: 60/251,015  
! PRIOR FILING DATE: 2000-12-04  
! PRIOR APPLICATION NUMBER: 60/263,678  
! PRIOR FILING DATE: 2001-01-23  
! PRIOR APPLICATION NUMBER: 60/273,037  
! PRIOR FILING DATE: 2001-03-02  
! NUMBER OF SEQ ID NOS: 1579  
! SOFTWARE: PatentIn version 3.0  
! SEQ ID NO 18  
! LENGTH: 407  
! TYPE: PRT  
! ORGANISM: homo sapiens  
US-10-005-956-18

Query Match 100.0%; Score 114; DB 14; Length 407;  
Best Local Similarity 100.0%; Pred. No. 8.9e-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFASMAAFNTVNF 23  
Db 68 NYFLVNLAFASMAAFNTVNF 90

## RESULT 9

US-10-005-956-20  
! Sequence 20, Application US/10005956  
! Publication No. US20030113726A1  
! GENERAL INFORMATION:  
! APPLICANT: Bristol-Myers Squibb Company  
! TITLE OF INVENTION: HUMAN SINGLE NUCLEOTIDE POLYMORPHISMS  
! FILE REFERENCE: D0053NP  
! CURRENT APPLICATION NUMBER: US/10/005,956  
! PRIOR FILING DATE: 2001-12-03  
! PRIOR APPLICATION NUMBER: 60/251,015  
! PRIOR FILING DATE: 2000-12-04  
! PRIOR APPLICATION NUMBER: 60/263,678  
! PRIOR FILING DATE: 2001-01-23  
! PRIOR APPLICATION NUMBER: 60/273,037  
! PRIOR FILING DATE: 2001-03-02  
! NUMBER OF SEQ ID NOS: 1579  
! SOFTWARE: PatentIn version 3.0  
! SEQ ID NO 20  
! LENGTH: 407  
! TYPE: PRT  
! ORGANISM: homo sapiens  
US-10-005-956-20

Query Match 100.0%; Score 114; DB 14; Length 407;  
Best Local Similarity 100.0%; Pred. No. 8.9e-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFASMAAFNTVNF 23  
Db 68 NYFLVNLAFASMAAFNTVNF 90

## RESULT 10

US-10-005-956-292  
! Sequence 292, Application US/10005956  
! Publication No. US20030113726A1  
! GENERAL INFORMATION:  
! APPLICANT: Bristol-Myers Squibb Company  
! TITLE OF INVENTION: HUMAN SINGLE NUCLEOTIDE POLYMORPHISMS  
! FILE REFERENCE: D0053NP  
! CURRENT APPLICATION NUMBER: US/10/005,956  
! PRIOR FILING DATE: 2001-12-03  
! PRIOR APPLICATION NUMBER: 60/251,015  
! PRIOR FILING DATE: 2000-12-04  
! PRIOR APPLICATION NUMBER: 60/263,678  
! PRIOR FILING DATE: 2001-01-23  
! PRIOR APPLICATION NUMBER: 60/273,037  
! PRIOR FILING DATE: 2001-03-02  
! NUMBER OF SEQ ID NOS: 1579  
! SOFTWARE: PatentIn version 3.0  
! SEQ ID NO 292  
! LENGTH: 407  
! TYPE: PRT  
! ORGANISM: homo sapiens  
! FEATURE:  
! NAME/KEY: misc feature  
! LOCATION: (543)..(543)  
! OTHER INFORMATION: wherein N is either a "T" or a "C".  
! NAME/KEY: misc feature  
! LOCATION: (672)..(672)  
! OTHER INFORMATION: wherein N is either a "C" or an "A".  
! NAME/KEY: misc feature  
! LOCATION: (1344)..(1344)  
! OTHER INFORMATION: wherein N is either a "G" or an "A".  
US-10-005-956-292

Query Match 100.0%; Score 114; DB 14; Length 407;  
Best Local Similarity 100.0%; Pred. No. 8.9e-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 68 NYFLVNLAFAEASMAAFNTVVNF 90

## RESULT 11

US-10-225-567A-322  
; Sequence 322, Application US/10225567A  
; Publication No. US20030113798A1  
; GENERAL INFORMATION:  
; APPLICANT: LifeSpan Biosciences  
; APPLICANT: Brown, Joseph P.  
; APPLICANT: Burmer, Glenna C.  
; APPLICANT: Roush, Christine L.  
; TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS  
; FILE REFERENCE: 1920-4-4  
; CURRENT APPLICATION NUMBER: US/10/225,567A  
; CURRENT FILING DATE: 2001-12-19  
; PRIOR APPLICATION NUMBER: 60/257,144  
; PRIOR FILING DATE: 2000-12-19  
; NUMBER OF SEQ ID NOS: 2292  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 322  
; LENGTH: 407  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-10-225-567A-322

Query Match 100.0%; Score 114; DB 14; Length 407;  
Best Local Similarity 100.0%; Pred. No. 8.9e-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 68 NYFLVNLAFAEASMAAFNTVVNF 90

## RESULT 12

US-10-925-095-525  
; Sequence 525, Application US/10925095  
; Publication No. US20050019840A1  
; GENERAL INFORMATION:  
; APPLICANT: Lehmann-Bruinsma, Karin  
; APPLICANT: Liaw, Chen W.  
; APPLICANT: Lin, I-Lin  
; TITLE OF INVENTION: Non-Endogenous, Constitutively Activated Known G  
; FILE REFERENCE: AREN-207  
; CURRENT APPLICATION NUMBER: US/10/925,095  
; CURRENT FILING DATE: 2004-08-24  
; PRIOR APPLICATION NUMBER: US/03/826,509  
; PRIOR FILING DATE: 2001-04-05  
; PRIOR APPLICATION NUMBER: 60/195,747  
; PRIOR FILING DATE: 2000-04-07  
; PRIOR APPLICATION NUMBER: 09/170,496  
; PRIOR FILING DATE: 1998-10-13  
; NUMBER OF SEQ ID NOS: 589  
; SOFTWARE: PatentIn Version 2.1  
; SEQ ID NO 525  
; LENGTH: 407  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-10-925-095-525

Query Match 100.0%; Score 114; DB 17; Length 407;  
Best Local Similarity 100.0%; Pred. No. 8.9e-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23

Db 68 NYFLVNLAFAEASMAAFNTVVNF 90

RESULT 13  
US-10-254-905-8  
; Sequence 8, Application US/10254905  
; Publication No. US20030186265A1  
; GENERAL INFORMATION:  
; APPLICANT: Bristol-Myers Squibb Company  
; TITLE OF INVENTION: A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR, HGPRMY7, EXPRESSED HIGH;  
; FILE REFERENCE: D0044 CIP  
; CURRENT APPLICATION NUMBER: US/10/254,905  
; CURRENT FILING DATE: 2002-09-25  
; NUMBER OF SEQ ID NOS: 75  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 8  
; LENGTH: 410  
; TYPE: PRT  
; ORGANISM: CHICKEN  
US-10-254-905-8

Query Match 97.4%; Score 111; DB 14; Length 410;  
Best Local Similarity 95.7%; Pred. No. 2.7e-09;  
Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 72 NYFLVNLAFAEASMAAFNTVVNF 94

## RESULT 14

US-09-966-782A-8  
; Sequence 8, Application US/09966782A  
; Publication No. US20030022183A1  
; GENERAL INFORMATION:  
; APPLICANT: Battaglini, P.  
; APPLICANT: Fedier, J. N.  
; APPLICANT: Mintier, G.  
; APPLICANT: Ramanathan, C. S.  
; APPLICANT: Westphal, R.  
; APPLICANT: Hawken, D. R.  
; APPLICANT: Cacace, A.  
; APPLICANT: Barber, L.  
; APPLICANT: Kornacker, M. G.  
; TITLE OF INVENTION: A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR, HGPRMY7,  
; FILE REFERENCE: D0044NP  
; CURRENT APPLICATION NUMBER: US/09/966,782A  
; CURRENT FILING DATE: 2001-09-26  
; PRIOR APPLICATION NUMBER: 60/235,731  
; PRIOR FILING DATE: 2000-09-27  
; PRIOR APPLICATION NUMBER: 60/268,580  
; PRIOR FILING DATE: 2001-02-14  
; PRIOR APPLICATION NUMBER: 60/315,423  
; PRIOR FILING DATE: 2001-08-28  
; NUMBER OF SEQ ID NOS: 64  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 8  
; LENGTH: 411  
; TYPE: PRT  
; ORGANISM: CHICKEN  
US-09-966-782A-8

Query Match 97.4%; Score 111; DB 10; Length 411;  
Best Local Similarity 95.7%; Pred. No. 2.7e-09;  
Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 72 NYFLVNLAFAEASMAAFNTVVNF 94

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RESULT 15
US-09-443-745-20
; Sequence 20, Application US/09443745
; Publication No. US2003005238A1
; GENERAL INFORMATION:
; APPLICANT: WANK, Stephen A.
; TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF
; TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Foley & Lardner
; STREET: 1800 Diagonal Road, Suite 500
; CITY: Alexandria
; STATE: VA
; COUNTRY: USA
; ZIP: 22313-0299
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/443,745
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/029,170
; FILING DATE: 10-MAR-1993
; APPLICATION NUMBER: US 07/937,609
; FILING DATE: 02-SEP-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/928,033
; FILING DATE: 11-AUG-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/861,769
; FILING DATE: 01-APR-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/831,248
; FILING DATE: 07-FEB-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: BENT, Stephen A.
; REGISTRATION NUMBER: 29,768
; REFERENCE/DOCKET NUMBER: 40399/166 NIHD
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (703)836-9300
; TELEFAX: (703)683-4109
; TELEX: 899149
; INFORMATION FOR SEQ ID NO: 20:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 372 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; CLONE: rat substance P receptor
US-09-443-745-20

```

```

Query Match 95.6%; Score 109; DB 10; Length 372;
Best Local Similarity 95.7%; Pred. No. 5e-09;
Matches 22; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFARASMAAFNTVNF 23
   |||||
Db 68 NYFLVNLAFARACMAAFNTVNF 90

```

Search completed: April 19, 2005, 14:47:54  
Job time : 52 secs

**This Page Blank (uspto)**

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: April 19, 2005, 14:43:54 ; Search time 171 Seconds  
(without alignments)  
52.020 Million cell updates/sec

Title: US-10-665-184-24

Perfect score: 114

Sequence: 1 NYFLNLAFAEASMAAFNTVNF 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A\_Geneseq\_16Dec04:\*

1: Geneseqp1980s:\*

2: Geneseqp1990s:\*

3: Geneseqp2000s:\*

4: Geneseqp2001s:\*

5: Geneseqp2002s:\*

6: Geneseqp2003as:\*

7: Geneseqp2003bs:\*

8: Geneseqp2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	114	100.0	23	ADB16907	Adb16907 Human neu
2	114	100.0	29	ADB16917	Adb16917 Escherich
3	114	100.0	311	AAR28800	Aar28800 Human neu
4	114	100.0	311	AAU91342	Aau91342 Neurokini
5	114	100.0	407	AAR27524	Aar27524 Human rec
6	114	100.0	407	AAR25306	Aar25306 hsp7suts2
7	114	100.0	407	AAR32799	Aar32799 Substance
8	114	100.0	407	ABB56366	Abb56366 Non-endog
9	114	100.0	407	ABG76988	Abg76988 Human tac
10	114	100.0	407	ABG76987	Abg76987 Human tac
11	114	100.0	407	ABG76990	Abg76990 Human tac
12	114	100.0	407	ABG76989	Abg76989 Human tac
13	114	100.0	407	ABG77000	Abg77000 Human tac
14	114	100.0	407	AAU91345	Aau91345 Neurokini
15	114	100.0	407	AAU91344	Aau91344 Neurokini
16	114	100.0	407	AAU78238	Aau78238 Human Tac
17	114	100.0	407	ABB99006	Abb99006 Mutant hu
18	114	100.0	407	ABP81918	Abp81918 Human tac
19	114	100.0	407	ADO29656	Ado29656 Human GPC
20	109	95.6	372	AAAB66623	Aab66623 Rat subst
21	109	95.6	407	AAR12970	Aar12970 Substance
22	109	95.6	407	AAR32800	Aar32800 Rat Subst
23	109	95.6	407	ADO29657	Ado29657 Mouse Gpc
24	105	92.1	415	ABM83920	Abm83920 Human dia
25	105	92.1	465	AAAR41973	Aar41973 Human neu

26	105	92.1	465	4	ABB56368	Abb56368 Non-endog
27	105	92.1	465	6	ABP81856	Abp81856 Human tac
28	105	92.1	465	8	ADO29660	Ado29660 Human GPC
29	105	92.1	505	5	ABG31299	Abg31299 Hydriophob
30	101	88.6	452	8	ADO29661	Ado29661 Mouse GPC
31	100	87.7	336	2	AAAR48729	Aar48729 G-protein
32	100	87.7	336	2	AAW02701	Aaw02701 G-protein
33	100	87.7	411	4	AAAB66624	Aab66624 Rat neuro
34	85	74.6	440	6	ABP81685	Abp81685 Human neu
35	83	72.8	138	8	ABO58795	Abos8795 Human gen
36	79	69.3	23	6	ADB16894	Adb16894 Human neu
37	79	69.3	30	6	ADB16914	Adb16914 Escherich
38	79	69.3	301	8	ADM72122	Adm72122 Human NTR
39	79	69.3	313	4	AAU08337	Aau08337 Bovine su
40	79	69.3	313	6	ABG73541	Abg73541 Bovine su
41	79	69.3	313	6	ABU62487	Abu62487 Bovine su
42	79	69.3	333	8	ADL70533	Adl70533 Human G-p
43	79	69.3	333	8	ABM83530	Abm83530 Human dia
44	79	69.3	385	1	AAAP90551	Aap90551 Bovine su
45	79	69.3	387	7	ABU61827	Abu61827 Human sub

#### ALIGNMENTS

##### RESULT 1

ADB16907

ID ADB16907 standard; peptide; 23 AA.

XX ADB16907;

AC ADB16907;

XX ADB16907;

DT 20-NOV-2003 (first entry)

XX Human neurokinin 1 (NK-1) receptor penetrating peptide 29.

DE Human neurokinin 1 (NK-1) receptor penetrating peptide 29.

XX Penetrating peptide; epithelial; endothelial; tight junction; diabetes;

KW Infertility; hormone; vitamin deficiency; neurodegenerative;

KW Cardiovascular; haematological; endocrine disorder; obesity;

KW Neoplastic disease; neuroprotective; cardiant; antiarteriosclerotic;

KW Osteopathic; cytostatic; nootropic.

XX Homo sapiens.

OS Homo sapiens.

XX WO2003066859-A2.

XX 14-AUG-2003.

XX 07-FEB-2003; 2003WO-IB000968.

XX 07-FEB-2002; 2002US-0355396P.

XX (YISS ) YISSUM RES DEV CO HEBREW UNIV JERUSALEM.

XX Ben-Saason SA, Cohen B;

XX WPI; 2003-697452/66.

XX New penetrating peptide, useful for preparing a composition for treating

XX or preventing e.g. endocrine disorders.

XX Claim 2; Page 14; 60pp; English.

XX This invention relates to a novel peptide sequences capable of

XX translocating across a biological barrier. Furthermore, it refers to

XX methods that use these peptides to facilitate penetration of a

XX biologically active effector molecule such as a drug or other therapeutic

XX agent across biological barriers e.g. epithelial or endothelial cells

XX sealed by tight junctions. This peptide is derived from a bacterial

XX toxin, an integral membrane or extracellular protein and can comprise an

XX anticoagulant, antibiotic, antipathogenic agent, immunomodulator, vitamin

XX or enzyme. The effector molecule, however, can comprise for example

XX insulin, gonadotropin, erythropoietin, granulocyte/monocyte colony

XX stimulating factor (GM-CSF), enkephalin, dalargin, or neurotrophic





QY 1 NYFLVNLAFASMAAFNTVNF 23  
 DB 68 NYFLVNLAFASMAAFNTVNF 90

RESULT 4  
 AAU91342  
 ID AAU91342 standard; protein; 311 AA.  
 XX AAU91342;  
 DT 18-JUN-2002 (first entry)  
 XX Neurokinin 1 receptor (NK-1) #1.  
 DE Human; neurokinin receptor-1; NK-1; dermatological disorder;  
 KW immune disorder; autoimmune disorder; cardiovascular disorder;  
 KW vascular disorder; airway disorder; neuropathic disorder; pain;  
 KW psychiatric disorder; central nervous system disorder; inflammation;  
 KW respiratory condition; ophthalmic condition; intestinal condition;  
 KW demyelinating disease; small cell lung cancer; depression;  
 KW hypersensitivity disorder; allergy; vasospastic disease; alcoholism;  
 KW neurodegenerative disorder; acquired immune deficiency syndrome; AIDS;  
 KW neuro-pathological disorder; stress; receptor.  
 XX Homo sapiens.  
 OS WO200213799-A2.  
 XX 21-FEB-2002.  
 XX 17-AUG-2001; 2001WO-IB001510.  
 XX 18-AUG-2000; 2000US-0226086P.  
 XX (UYMC-) UNIV MCGILL.  
 XX Henry JL, Cahill CW, Yashpal K;  
 XX WPI; 2002-241835/29.  
 XX N-PSDB; ABK63834.  
 XX Treating pathological condition involving neurokinin receptor-1, e.g.  
 PT pain or inflammation, by administering oligonucleotide or a non-  
 PT nucleotide disruptor compound which modulate NK-1 receptor biosynthetic  
 PT pathway.  
 XX Example 18; Page 60; 100pp; English.

The invention relates to a method of treating a pathological condition characterised partially by involvement of neurokinin receptor-1 (NK-1) receptor, especially treating, attenuating or preventing pain or inflammatory condition. The method comprises administering to a mammal, a compound chosen from an oligonucleotide, its analogue, and a disruptor which interferes with function or production of NK-1 receptors. The method is useful for treating a pathological condition characterised by involvement of NK-1 receptor such as dermatological, immune, autoimmune, cardiovascular, vascular disorders (e.g. migraine), airway, neuropathic, psychiatric and central nervous system disorders (e.g. anxiety, psychosis, schizophrenia), gut inflammation, arthritis, and central or peripheral aspects of chronic or acute pain, and for treating, attenuating or preventing pain or inflammation such as peripheral, chronic, acute pain or inflammation, neuropathic pain, inflammation or pain relating to psychiatric disorders and central nervous system disorders, including hyperalgesia, allodynia, neuralgia and dysesthesia in a mammal, in particular human. NK-1 receptor related disorders, diseases, or pathological conditions treatable by this method include respiratory conditions (e.g. asthma, allergic rhinitis), ophthalmic conditions (e.g. conjunctivitis), cutaneous/dermatological conditions (allergic dermatitis), intestinal conditions (e.g. ulcerative colitis and Crohn's disease), cardiovascular conditions (stroke), chronic gastrointestinal tract inflammation, and inflammatory diseases such as inflammatory bowel diseases. Other disorders and diseases include

CC cardiovascular pathologies including stroke, chronic inflammatory  
 CC diseases such as rheumatoid arthritis, demyelinating diseases such as  
 CC multiple sclerosis, small cell lung cancer, depression, hypersensitivity  
 CC disorders such as allergies and poison ivy, vasospastic diseases such as  
 CC angina, addiction disorders such as alcoholism, neurodegenerative  
 CC disorders such as acquired immune deficiency syndrome (AIDS) related  
 CC dementia, epilepsy, Alzheimer's disease, and other neuro-pathological  
 CC disorders such as peripheral neuropathy, oedema, stress related and  
 CC somatic disorders, and osteoarthritis. Antisense oligonucleotides  
 CC effectively treat chronic conditions and other pathological states  
 CC without the co-administration of substance P, and reduce the number of  
 CC activated receptors while not reducing the number of quiescent NK-1  
 CC receptors. Receptors not chronically stimulated are less affected,  
 CC reducing side effects of treatment. AAU91342-AAU91346 represent NK-1  
 CC receptor amino acid sequences of the invention  
 XX Sequence 311 AA;  
 SQ Query Match 100.0%; Score 114; DB 5; Length 311;  
 Best Local Similarity 100.0%; Pred. No. 2.5e-10;  
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFASMAAFNTVNF 23  
 DB 68 NYFLVNLAFASMAAFNTVNF 90

RESULT 5  
 AAR27524  
 ID AAR27524 standard; protein; 407 AA.  
 XX AAR27524;  
 XX 25-MAR-2003 (revised)  
 DT 05-MAR-1993 (first entry)  
 XX Human recombinant NK-1 receptor.  
 DE Neurokinin; substance P; inflammation; pain; mental illness; antagonist.  
 KW Homo sapiens.  
 OS Key Location/Qualifiers  
 FH Domain 1..31  
 FT /note= "extracellular domain"  
 FT Domain 60..67  
 FT /note= "intracellular domain"  
 FT Domain 90..101  
 FT /note= "extracellular domain"  
 FT Domain 129..148  
 FT /note= "intracellular domain"  
 FT Domain 170..197  
 FT /note= "extracellular domain"  
 FT Domain 220..248  
 FT /note= "intracellular domain"  
 FT Domain 271..287  
 FT /note= "extracellular domain"  
 FT Domain 310..407  
 FT /note= "intracellular domain"  
 XX WO9216547-A1.  
 PN 01-OCT-1992.  
 XX 13-MAR-1992; 92WO-US002007.  
 XX 15-MAR-1991; 91US-00670039.  
 XX (CHIL-) CHILDRENS MEDICAL CENT.  
 XX Gerard NP, Gerard C;  
 XX WPI; 1992-349150/42.

DR N-PSDB; AAQ29179.  
XX Human recombinant NK-1 receptor and fragments - for treating  
PT inflammation, pain and mental illness and for screening of other cpds.  
PT that antagonise interaction between substance P neuro-transmitter and NK-  
PT 1 receptors.  
XX  
XX  
PS Claim 2; Fig 1; 27pp; English.  
CC The human neurokinin (NK-1) receptor sequence was deduced from the DNA  
CC sequence obt'd. by screening a human placental genomic DNA library with a  
CC probe having a partial sequence of human NK-1 receptor. The proteins  
CC domains were determined by comparison with other members of the rhodopsin  
CC superfamily and by examination of the hydrophobic and hydrophilic regions  
CC of the mol. An extracellular domain may be capable of binding substance P  
CC neurotransmitter. The NK-1 receptor may be used in therapeutic compns.  
CC for the treatment of pain, inflammatory diseases e.g. arthritis or  
CC asthma, mental illness e.g. schizophrenia, and stress. The compsn. is  
CC administered in an amt. effective to antagonise an interaction between  
CC substance P transmitter and an NK-1 receptor. See also AAQ29180-1.  
CC (Updated on 25-MAR-2003 to correct PN field.)  
XX  
XX  
SQ Sequence 407 AA;  
Query Match 100.0%; Score 114; DB 2; Length 407;  
Best Local Similarity 100.0%; Pred. No. 3.5e-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 68 NYFLVNLAFAEASMAAFNTVVNF 90  
RESULT 6  
AAR25306  
ID AAR25306 standard; protein; 407 AA.  
XX  
AC AAR25306;  
XX  
XX 25-MAR-2003 (revised)  
DT 21-DEC-1998 (revised)  
DT 15-MAR-1993 (first entry)  
DE hpr5uts2 primer 86-105.  
XX  
XX Human; neurokinin-1 receptor; NKIR; membrane receptor; substance P;  
KW neurotransmitter; polymerase chain reaction; PCR; rat NKIR; primer;  
KW amplify; probe.  
XX  
XX Homo sapiens.  
XX  
XX EP510878-A1.  
XX  
XX 28-OCT-1992.  
XX  
XX 16-APR-1992; 92EP-00303457.  
XX  
XX 25-APR-1991; 91US-00691197.  
PR 25-APR-1991; 91US-00691198.  
PR 25-APR-1991; 91US-00691200.  
XX  
XX (MERI ) MERCK & CO INC.  
XX  
XX Fong TM, Strader CD;  
XX  
XX WPI; 1992-359073/44.  
XX N-PSDB; AAQ29749.  
XX  
XX New recombinant human neurokinin-1 receptor - used to detect and evaluate  
PT substances that bind to substance P receptor, and to determine substance  
PT P in body fluid of arthritis patients.  
XX  
XX Claim 1; Fig 2; 35pp; English.  
PS

XX The sequence given is encoded by the human neurokinin-1 receptor (NKIR)  
CC cDNA. Human NKIR is a membrane receptor for the neurotransmitter  
CC substance P. The cDNA was derived using primers which were designed using  
CC regions of the human NKIR cDNA and also regions of the rat NKIR which  
CC were thought to be similar to human regions. See also AAQ29670-82,  
CC AAQ29783 and AAQ29746-48. Part of the human cDNA sequence was derived by  
CC amplification using the primers. The remaining part of human NKIR cDNA  
CC was obtained from a human cDNA library utilising portions of PCR  
CC generated fragments as probes. (Revised entry submitted to correct  
CC Pro(353) to Arg(353) in the sequence.) (Updated on 25-MAR-2003 to correct  
CC PN field.)  
XX  
SQ Sequence 407 AA;  
Query Match 100.0%; Score 114; DB 2; Length 407;  
Best Local Similarity 100.0%; Pred. No. 3.5e-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 68 NYFLVNLAFAEASMAAFNTVVNF 90  
RESULT 7  
AAR32799  
ID AAR32799 standard; protein; 407 AA.  
XX  
AC AAR32799;  
XX  
XX 25-MAR-2003 (revised)  
DT 17-JUN-1993 (first entry)  
XX  
DE Substance P receptor.  
XX  
XX human substance P receptor protein; SP; neurotransmitter; neuromodulator;  
KW central nervous system; peripheral nervous system;  
KW gastrointestinal disorders; inflammation; immune disease.  
XX  
XX Synthetic.  
XX  
XX WO9303137-A1.  
XX  
XX 18-FEB-1993.  
XX  
XX 05-AUG-1992; 92WO-US006532.  
PF  
XX 07-AUG-1991; 91US-00741200.  
XX  
XX (UNIW ) UNIV WASHINGTON.  
XX  
XX Krause JE;  
XX  
XX WPI; 1993-076495/09.  
XX N-PSDB; AAQ37210.  
XX  
XX New human substance P receptor protein and DNA encoding it - used e.g.  
XX for screening substance P antagonists.  
XX  
XX Example; Page 19; 40pp; English.  
XX  
XX This sequence represents the human substance P receptor. This mediates  
CC many of the biological activities of substance P (SP) so cells expressing  
CC this protein are useful in studying cellular mechanisms involved in  
CC expression of SP mRNA and for screening SP antagonists (potentially  
CC useful in treatment of central and peripheral nervous system and  
CC gastrointestinal disorders, inflammation and immune disease). Transformed  
CC cells express many more receptors than natural human tissue cells, so  
CC will allow more rapid screening of antagonists. The protein may also be  
CC useful diagnostically to identify abnormal receptors associated with  
CC disease, from IM-9 cDNA. It was amplified by PCR using AAQ37208, 9. The  
CC amplified fragment was blunt ended and ligated into SmaI-digested pBS.  
CC Transformsants were further analysed by restriction mapping and by

CC sequence analysis. One cDNA was isolated after restriction with HindIII  
 CC and BamHI (present in the PBS polylinker) and made blunt ended with  
 CC Klenow, as was pM2 after BamHI digestion. The cDNA was ligated to pM2 and  
 CC used to transform E. coli XL-1 Blue cells by electroporation. (Updated on  
 CC 25-MAR-2003 to correct PN field.)  
 XX

XX Sequence 407 AA;

Query Match 100.0%; Score 114; DB 2; Length 407;  
 Best Local Similarity 100.0%; Pred. No. 3.5e-10;  
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFASMAAFNTVNF 23  
 |||||  
 DB 68 NYFLVNLAFASMAAFNTVNF 90

# RESULT 8

ABB56366

ID ABB56366 standard; protein; 407 AA.

AC ABB56366;

XX 18-FEB-2002 (first entry)

XX Non-endogenous human GPCR protein, SEQ ID NO: 525.

XX Human; G protein-coupled receptor; GPCR; non-endogenous; mutant;  
 KW constitutively activated GPCR; agonist; disease.

XX Homo sapiens.

OS Synthetic.

XX WO200177172-A2.

XX 18-OCT-2001.

XX 05-APR-2001; 2001WO-US011098.

XX 07-APR-2000; 2000US-0195747P.

XX (AREN-) ARENA PHARM INC.

XX Lehmann-Bruinsema K, Liaw CW, Lin I;

XX WPI; 2001-648759/74.

XX N-PSDB; ABI98002.

XX Identifying agonists of G protein-coupled receptors (GPCRs) for use in  
 PT disease treatment, comprises contacting candidate compounds with versions  
 PT of GPCRs.  
 XX  
 XX Claim 1; Page 326-327; 394pp; English.

XX The invention relates to G protein-coupled receptors (GPCRs) for which  
 CC the endogenous ligand has been identified. Non-endogenous constitutively  
 CC activated versions of known GPCRs are used in the invention for the  
 CC direct identification of candidate compounds as receptor agonists,  
 CC inverse agonists or partial agonists. Such agonists are useful as,  
 CC therapeutic agents for diseases or disorders associated with GPCRs. The  
 CC present sequence is a non-endogenous version of a known human GPCR  
 XX

SQ Sequence 407 AA;

Query Match 100.0%; Score 114; DB 4; Length 407;  
 Best Local Similarity 100.0%; Pred. No. 3.5e-10;  
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFASMAAFNTVNF 23  
 |||||  
 DB 68 NYFLVNLAFASMAAFNTVNF 90

# RESULT 9

ABG76988

ID ABG76988 standard; protein; 407 AA.

XX ABG76988;

XX 05-NOV-2002 (first entry)

XX Human tachykinin receptor 1 variant #1.

XX Amino peptidase P; XPNP2; bradykinin receptor B1; human; BDKRB1;  
 KW tachykinin receptor B1; TACR1; Cl esterase inhibitor; CINH; kallikrein 1;  
 KW KKL1; bradykinin receptor B2; BDKRB2; gene therapy;  
 KW angiotensin converting enzyme 2; ACE2; protease inhibitor 4; P14;  
 KW polymorphism; haemangioma; tumour; sarcoma; Crohn's disease; trachoma;  
 KW cardiovascular disease; angina pectoris; hypertension; heart failure;  
 KW myocardial infarction; ventricular hypertrophy; vascular disease;  
 KW aneurysm; embolism; thrombosis; coronary artery disease; angioedema;  
 KW arteriosclerosis; atherosclerosis; hypersensitivity; sepsis;  
 KW autoimmune disease; inflammatory arthritis; cancer; wound;  
 KW viral infection; bacterial infection; fungal infection; COPD;  
 KW Chronic obstructive pulmonary disease; enterocolitis.

XX Homo sapiens.

OS WO200261131-A2.

XX 08-AUG-2002.

XX 03-DEC-2001; 2001WO-US047235.

XX 04-DEC-2000; 2000US-0251015P.

XX 23-JAN-2001; 2001US-0263678P.

XX 02-MAR-2001; 2001US-0273037P.

XX (BRIM) BRISTOL-MYERS SQUIBB CO.

XX (TSUC) TSUCHIHASHI Z.

XX (HUIL) HUI L.

XX Tsuchihashi Z, Hui L, Zerba KE, Ma-Edmonds M, Perrone MH;

XX Swanson BN, Powell JR;

XX WPI; 2002-619265/66.

XX N-PSDB; ABS59840.

XX New isolated nucleic acid with at least one polymorphic position, useful  
 CC for detecting, diagnosing and treating disorders such as angioedema,  
 CC cancer, viral, bacterial or fungal infection, cardiovascular and  
 CC autoimmune diseases.  
 XX Disclosure; Fig 8; 977pp; English.

XX The invention relates to an isolated nucleic acid from a human gene  
 CC encoding aminopeptidase P (XPNP2), bradykinin receptor B1 (BDKRB1),  
 CC tachykinin receptor B1 (TACR1), Cl esterase inhibitor (CINH), kallikrein  
 CC 1 (KLK1), bradykinin receptor B2 (BDKRB2), angiotensin converting enzyme  
 CC 2 (ACE2) or protease inhibitor 4 (P14), comprising at least one  
 CC polymorphic position. Also included are (1) a probe that hybridises to a  
 CC polymorphic position as provided in the detailed summary of single  
 CC nucleotide polymorphisms comprising additional 5' and 3' flanking genomic  
 CC sequence; (2) analysing (M1) at least one nucleic acid sample comprising  
 CC obtaining the sample from one or more individuals and determining the  
 CC nucleic acid sequence at one or more polymorphic positions in a gene  
 CC encoding a protein selected from the group above; (3) constructing (M2)  
 CC haplotypes using the genes comprising grouping at least two nucleic acids  
 CC; (4) identifying (M3) an individual at risk of developing a disorder  
 CC upon administration of an ACE inhibitor and/or vasopressinase inhibitor  
 CC using the polymorphic data; (5) a library of nucleic acids, each of which  
 CC comprises one or more polymorphic positions within a gene encoding a  
 CC human protein selected from the group above; and (6) genotyping (M4) an  
 CC individual comprising obtaining a nucleic acid sample, determining the  
 CC nucleotide present in at least one polymorphic position, and comparing at  
 CC least one position with a known data set. The genes, (M1, M2, M3 and M4)

CC and compositions are useful for detecting, diagnosing, treating,  
 CC preventing various disorders such as angioedema and diseases which  
 CC involve angiogenesis like haemangiomas, tumours, sarcomas, Crohn's  
 CC disease, trachomas, and cardiovascular diseases like angina pectoris,  
 CC hypertension, heart failure, myocardial infarction, ventricular  
 CC hypertrophy, vascular diseases, aneurysm, embolism, thrombosis, coronary  
 CC artery disease, arteriosclerosis and/or atherosclerosis, and  
 CC hyperaenativity reactions, sepsis, autoimmune diseases, inflammatory  
 CC arthritis, cancer, wounds, viral, bacterial or fungal infection, Chronic  
 CC obstructive pulmonary disease (COPD) and enterocolitis (many other  
 CC diseases and disorders are listed in the specification). The  
 CC polynucleotides are also useful for chromosome identification. Antibodies  
 CC against the proteins may be utilised for immunophenotyping of cell lines  
 CC and biological samples. The present sequence represents a polymorphic  
 CC variant of one of the proteins listed above  
 XX  
 SQ Sequence 407 AA;  
 Query Match 100.0%; Score 114; DB 5; Length 407;  
 \* Best Local Similarity 100.0%; Pred. No. 3.5e-10;  
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 NYFLNLAFASMAAFNTVNF 23  
 |||||  
 \* Db 68 NYFLNLAFASMAAFNTVNF 90  
 |||||  
 RESULT 10  
 ABG76987  
 ID ABG76987 standard; protein; 407 AA.  
 XX  
 AC ABG76987;  
 XX  
 DT 05-NOV-2002 (first entry)  
 XX  
 DE Human tachykinin receptor 1.  
 XX  
 KW Aminopeptidase P; XPNEP2; bradykinin receptor B1; human; BDKRB1;  
 KW tachykinin receptor B1; TACR1; C1 esterase inhibitor; C1NH; kallikrein 1;  
 KW KUK1; bradykinin receptor B2; BDKRB2; gene therapy;  
 KW angiotensin converting enzyme 2; ACE2; protease inhibitor 4; PI4;  
 KW polymorphism; haemangioma; tumour; sarcoma; Crohn's disease; trachoma;  
 KW cardiovascular disease; angina pectoris; hypertension; heart failure;  
 KW myocardial infarction; ventricular hypertrophy; vascular disease;  
 KW aneurysm; embolism; thrombosis; coronary artery disease; angioedema;  
 KW arteriosclerosis; atherosclerosis; hypersensitivity; sepsis;  
 KW autoimmune disease; inflammatory arthritis; cancer; wound;  
 KW viral infection; bacterial infection; fungal infection; COPD;  
 KW Chronic obstructive pulmonary disease; enterocolitis.  
 XX  
 CS Homo sapiens.  
 XX  
 PN WO200261131-A2.  
 XX  
 PD 08-AUG-2002.  
 XX  
 PF 03-DEC-2001; 2001WO-US047235.  
 XX  
 PR 04-DEC-2000; 2000US-0251015P.  
 PR 23-JAN-2001; 2001US-0263678P.  
 PR 02-MAR-2001; 2001US-0273037P.  
 XX  
 PA (BRIM) BRISTOL-MYERS SQUIBB CO.  
 PA (TSUC//) TSUCHIHASHI Z.  
 PA (HUIL//) HUI L.  
 XX  
 XX Tsuchihashi Z, Hui L, Zerba KE, Ma-Edmonds M, Perrone MH;  
 PI Swanson EN, Powell JR;  
 XX  
 XX WPI; 2002-619265/66.  
 DR NP-PSDB; ABS59839.  
 XX  
 PT New isolated nucleic acid with at least one polymorphic position, useful

PT for detecting, diagnosing and treating disorders such as angioedema,  
 PT cancer, viral, bacterial or fungal infection, cardiovascular and  
 PT autoimmune diseases.  
 XX  
 PS Disclosure; Fig 7; 977pp; English.  
 XX  
 CC The invention relates to an isolated nucleic acid from a human gene  
 CC encoding aminopeptidase P (XPNEP2), bradykinin receptor B1 (BDKRB1),  
 CC tachykinin receptor B1 (TACR1), C1 esterase inhibitor (C1NH), kallikrein  
 CC 1 (KUK1), bradykinin receptor B2 (BDKRB2), angiotensin converting enzyme  
 CC 2 (ACE2) or protease inhibitor 4 (PI4), comprising at least one  
 CC polymorphic position. Also included are (1) a probe that hybridises to a  
 CC polymorphic position as provided in the detailed summary of single  
 CC nucleotide polymorphisms comprising additional 5' and 3' flanking genomic  
 CC sequences; (2) analysing (M1) at least one nucleic acid sample comprising  
 CC obtaining the sample from one or more individuals and determining the  
 CC nucleic acid sequence at one or more polymorphic positions in a gene  
 CC encoding a protein selected from the group above; (3) constructing (M2)  
 CC haplotypes using the genes comprising grouping at least two nucleic acids  
 CC; (4) identifying (M3) an individual at risk of developing a disorder  
 CC upon administration of an ACE inhibitor and/or vasoconstrictor inhibitor  
 CC using the polymorphic data; (5) a library of nucleic acids, each of which  
 CC comprises one or more polymorphic positions within a gene encoding a  
 CC human protein selected from the group above; and (6) genotyping (M4) an  
 CC individual comprising obtaining a nucleic acid sample, determining the  
 CC nucleotide present in at least one polymorphic position, and comparing at  
 CC least one position with a known data set. The genes, (M1, M2, M3 and M4)  
 CC and compositions are useful for detecting, diagnosing, treating,  
 CC preventing various disorders such as angioedema and diseases which  
 CC involve angiogenesis like haemangiomas, tumours, sarcomas, Crohn's  
 CC disease, trachomas, and cardiovascular diseases like angina pectoris,  
 CC hypertension, heart failure, myocardial infarction, ventricular  
 CC hypertrophy, vascular diseases, aneurysm, embolism, thrombosis, coronary  
 CC artery disease, arteriosclerosis and/or atherosclerosis, and  
 CC hypersensitivity reactions, sepsis, autoimmune diseases, inflammatory  
 CC arthritis, cancer, wounds, viral, bacterial or fungal infection, Chronic  
 CC obstructive pulmonary disease (COPD) and enterocolitis (many other  
 CC diseases and disorders are listed in the specification). The  
 CC polynucleotides are also useful for chromosome identification. Antibodies  
 CC against the proteins may be utilised for immunophenotyping of cell lines  
 CC and biological samples. The present sequence represents a polymorphic  
 CC variant of one of the proteins listed above  
 XX  
 SQ Sequence 407 AA;  
 Query Match 100.0%; Score 114; DB 5; Length 407;  
 Best Local Similarity 100.0%; Pred. No. 3.5e-10;  
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 NYFLNLAFASMAAFNTVNF 23  
 |||||  
 Db 68 NYFLNLAFASMAAFNTVNF 90  
 |||||  
 RESULT 11  
 ABG76990  
 ID ABG76990 standard; protein; 407 AA.  
 XX  
 AC ABG76990;  
 XX  
 DT 05-NOV-2002 (first entry)  
 XX  
 DE Human tachykinin receptor 1 variant #3.  
 XX  
 KW Aminopeptidase P; XPNEP2; bradykinin receptor B1; human; BDKRB1;  
 KW tachykinin receptor B1; TACR1; C1 esterase inhibitor; C1NH; kallikrein 1;  
 KW KUK1; bradykinin receptor B2; BDKRB2; gene therapy;  
 KW angiotensin converting enzyme 2; ACE2; protease inhibitor 4; PI4;  
 KW polymorphism; haemangioma; tumour; sarcoma; Crohn's disease; trachoma;  
 KW cardiovascular disease; angina pectoris; hypertension; heart failure;  
 KW myocardial infarction; ventricular hypertrophy; vascular disease;  
 KW aneurysm; embolism; thrombosis; coronary artery disease; angioedema;  
 KW arteriosclerosis; atherosclerosis; hypersensitivity; sepsis;  
 KW autoimmune disease; inflammatory arthritis; cancer; wound;  
 KW viral infection; bacterial infection; fungal infection; COPD;  
 KW Chronic obstructive pulmonary disease; enterocolitis.  
 XX  
 CS Homo sapiens.  
 XX  
 PN WO200261131-A2.  
 XX  
 PD 08-AUG-2002.  
 XX  
 PF 03-DEC-2001; 2001WO-US047235.  
 XX  
 PR 04-DEC-2000; 2000US-0251015P.  
 PR 23-JAN-2001; 2001US-0263678P.  
 PR 02-MAR-2001; 2001US-0273037P.  
 XX  
 PA (BRIM) BRISTOL-MYERS SQUIBB CO.  
 PA (TSUC//) TSUCHIHASHI Z.  
 PA (HUIL//) HUI L.  
 XX  
 XX Tsuchihashi Z, Hui L, Zerba KE, Ma-Edmonds M, Perrone MH;  
 PI Swanson EN, Powell JR;  
 XX  
 XX WPI; 2002-619265/66.  
 DR NP-PSDB; ABS59839.  
 XX  
 PT New isolated nucleic acid with at least one polymorphic position, useful

KW autoimmune disease; inflammatory arthritis; cancer; wound;  
 KW viral infection; bacterial infection; fungal infection; COPD;  
 KW Chronic obstructive pulmonary disease; enterocolitis.  
 OS Homo sapiens.  
 XX WO200261131-A2.  
 PN 08-AUG-2002.  
 XX 03-DEC-2001; 2001WO-US047235.  
 XX 04-DEC-2000; 2000US-0251015P.  
 PR 23-JAN-2001; 2001US-0263678P.  
 PR 02-MAR-2001; 2001US-0273037P.  
 XX (BRIM ) BRISTOL-MYERS SQUIBB CO.  
 PA (TSUC/) TSUCHIHASHI Z.  
 PA (HUIL/) HUI L.  
 XX Tsuchihashi Z, Hui L, Zerba KE, Ma-Edmonds M, Perrone MH;  
 PI Swanson BN, Powell JR;  
 FI WPI; 2002-619265/66.  
 DR N-PSDB; ABS59842.  
 XX New isolated nucleic acid with at least one polymorphic position, useful  
 PT for detecting, diagnosing and treating disorders such as angioedema,  
 PT cancer, viral, bacterial or fungal infection, cardiovascular and  
 PT autoimmune diseases.  
 XX Disclosure; Fig 10; 977pp; English.  
 PS The invention relates to an isolated nucleic acid from a human gene  
 CC encoding aminopeptidase P (XPNEP2), bradykinin receptor B1 (BDRKB1),  
 CC tachykinin receptor B1 (TACR1), C1 esterase inhibitor (C1NH), kallikrein  
 CC 1 (KLK1), bradykinin receptor B2 (BDRKB2), angiotensin converting enzyme  
 CC 2 (ACE2) or protease inhibitor 4 (PI4), comprising at least one  
 CC polymorphic position. Also included are (1) a probe that hybridises to a  
 CC polymorphic position as provided in the detailed summary of single  
 CC nucleotide polymorphisms comprising additional 5' and 3' flanking genomic  
 CC sequence; (2) analysing (M1) at least one nucleic acid sample comprising  
 CC obtaining the sample from one or more individuals and determining the  
 CC nucleic acid sequence at one or more polymorphic positions in a gene  
 CC encoding a protein selected from the group above; (3) constructing (M2)  
 CC haplotypes using the genes comprising grouping at least two nucleic acids  
 CC ; (4) identifying (M3) an individual at risk of developing a disorder  
 CC upon administration of an ACE inhibitor and/or vasopeptidase inhibitor  
 CC using the polymorphic data; (5) a library of nucleic acids, each of which  
 CC comprises one or more polymorphic positions within a gene encoding a  
 CC human protein selected from the group above; and (6) genotyping (M4) an  
 CC individual comprising obtaining a nucleic acid sample, determining the  
 CC nucleotide present in at least one polymorphic position, and comparing at  
 CC least one position with a known data set. The genes, (M1, M2, M3 and M4)  
 CC and compositions are useful for detecting, diagnosing, treating,  
 CC preventing various disorders such as angioedema and diseases which  
 CC involve angiogenesis like haemangiomas, tumours, sarcomas, Crohn's  
 CC disease, trachoma, and cardiovascular diseases like angina pectoris,  
 CC hypertension, heart failure, myocardial infarction, ventricular  
 CC hypertrophy, vascular diseases, aneurysm, embolism, thrombosis, coronary  
 CC artery disease, arteriosclerosis and/or atherosclerosis, and  
 CC hypersensitivity reactions, sepsis, autoimmune diseases, inflammatory  
 CC arthritis, cancer, wounds, viral, bacterial or fungal infection, Chronic  
 CC obstructive pulmonary disease (COPD) and enterocolitis (many other  
 CC diseases and disorders are listed in the specification). The  
 CC polynucleotides are also useful for chromosome identification. Antibodies  
 CC against the proteins may be utilised for immunophenotyping of cell lines  
 CC and biological samples. The present sequence represents a polymorphic  
 CC variant of one of the proteins listed above  
 XX Sequence 407 AA;  
 SQ Query Match 100.0%; Score 114; DB 5; Length 407;

Best Local Similarity 100.0%; Pred. No. 3.5e-10;  
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 NYELVNLAFAEASMAAFNTVVNF 23  
 |||||  
 DB 68 NYELVNLAFAEASMAAFNTVVNF 90  
 RESULT 12  
 ABG76989  
 ID ABG76989 standard; protein; 407 AA.  
 XX AC ABG76989;  
 XX DT 05-NOV-2002 (first entry)  
 XX DE Human tachykinin receptor 1 variant #2.  
 XX KW Aminopeptidase P; XPNEP2; bradykinin receptor B1; human; BDRKB1;  
 KW tachykinin receptor B1; TACR1; C1 esterase inhibitor; C1NH; kallikrein 1;  
 KW KLK1; bradykinin receptor B2; BDRKB2; gene therapy;  
 KW angiotensin converting enzyme 2; ACE2; protease inhibitor 4; PI4;  
 KW polymorphism; haemangioma; tumour; sarcoma; Crohn's disease; trachoma;  
 KW cardiovascular disease; angina pectoris; hypertension; heart failure;  
 KW myocardial infarction; ventricular hypertrophy; vascular disease;  
 KW aneurysm; embolism; thrombosis; coronary artery disease; angioedema;  
 KW arteriosclerosis; atherosclerosis; hypersensitivity; sepsis;  
 KW autoimmune disease; inflammatory arthritis; cancer; wound;  
 KW viral infection; bacterial infection; fungal infection; COPD;  
 KW Chronic obstructive pulmonary disease; enterocolitis.  
 XX OS Homo sapiens.  
 XX WO200261131-A2.  
 XX PD 08-AUG-2002.  
 XX PF 03-DEC-2001; 2001WO-US047235.  
 XX PR 04-DEC-2000; 2000US-0251015P.  
 PR 23-JAN-2001; 2001US-0263678P.  
 PR 02-MAR-2001; 2001US-0273037P.  
 XX (BRIM ) BRISTOL-MYERS SQUIBB CO.  
 PA (TSUC/) TSUCHIHASHI Z.  
 PA (HUIL/) HUI L.  
 XX Tsuchihashi Z, Hui L, Zerba KE, Ma-Edmonds M, Perrone MH;  
 PI Swanson BN, Powell JR;  
 FI WPI; 2002-619265/66.  
 DR N-PSDB; ABS59841.  
 XX New isolated nucleic acid with at least one polymorphic position, useful  
 PT for detecting, diagnosing and treating disorders such as angioedema,  
 PT cancer, viral, bacterial or fungal infection, cardiovascular and  
 PT autoimmune diseases.  
 XX Disclosure; Fig 9; 977pp; English.  
 PS The invention relates to an isolated nucleic acid from a human gene  
 CC encoding aminopeptidase P (XPNEP2), bradykinin receptor B1 (BDRKB1),  
 CC tachykinin receptor B1 (TACR1), C1 esterase inhibitor (C1NH), kallikrein  
 CC 1 (KLK1), bradykinin receptor B2 (BDRKB2), angiotensin converting enzyme  
 CC 2 (ACE2) or protease inhibitor 4 (PI4), comprising at least one  
 CC polymorphic position. Also included are (1) a probe that hybridises to a  
 CC polymorphic position as provided in the detailed summary of single  
 CC nucleotide polymorphisms comprising additional 5' and 3' flanking genomic  
 CC sequence; (2) analysing (M1) at least one nucleic acid sample comprising  
 CC obtaining the sample from one or more individuals and determining the  
 CC nucleic acid sequence at one or more polymorphic positions in a gene  
 CC encoding a protein selected from the group above; (3) constructing (M2)  
 CC haplotypes using the genes comprising grouping at least two nucleic acids  
 CC ; (4) identifying (M3) an individual at risk of developing a disorder  
 CC upon administration of an ACE inhibitor and/or vasopeptidase inhibitor  
 CC using the polymorphic data; (5) a library of nucleic acids, each of which  
 CC comprises one or more polymorphic positions within a gene encoding a  
 CC human protein selected from the group above; and (6) genotyping (M4) an  
 CC individual comprising obtaining a nucleic acid sample, determining the  
 CC nucleotide present in at least one polymorphic position, and comparing at  
 CC least one position with a known data set. The genes, (M1, M2, M3 and M4)  
 CC and compositions are useful for detecting, diagnosing, treating,  
 CC preventing various disorders such as angioedema and diseases which  
 CC involve angiogenesis like haemangiomas, tumours, sarcomas, Crohn's  
 CC disease, trachoma, and cardiovascular diseases like angina pectoris,  
 CC hypertension, heart failure, myocardial infarction, ventricular  
 CC hypertrophy, vascular diseases, aneurysm, embolism, thrombosis, coronary  
 CC artery disease, arteriosclerosis and/or atherosclerosis, and  
 CC hypersensitivity reactions, sepsis, autoimmune diseases, inflammatory  
 CC arthritis, cancer, wounds, viral, bacterial or fungal infection, Chronic  
 CC obstructive pulmonary disease (COPD) and enterocolitis (many other  
 CC diseases and disorders are listed in the specification). The  
 CC polynucleotides are also useful for chromosome identification. Antibodies  
 CC against the proteins may be utilised for immunophenotyping of cell lines  
 CC and biological samples. The present sequence represents a polymorphic  
 CC variant of one of the proteins listed above

CC ; (4) identifying (M3) an individual at risk of developing a disorder  
 CC upon administration of an ACE inhibitor and/or vasopeptidase inhibitor  
 CC using the polymorphic data; (5) a library of nucleic acids, each of which  
 CC comprises one or more polymorphic positions within a gene encoding a  
 CC human protein selected from the group above; and (6) genotyping (M4) an  
 CC individual comprising obtaining a nucleic acid sample, determining the  
 CC nucleotide present in at least one polymorphic position, and comparing at  
 CC least one position with a known data set. The genes, (M1, M2, M3 and M4)  
 CC and compositions are useful for detecting, diagnosing, treating,  
 CC preventing various disorders such as angioedema and diseases which  
 CC involve angiogenesis like haemangiomas, tumours, sarcomas, Crohn's  
 CC disease, trachomas, and cardiovascular diseases like angina pectoris,  
 CC hypertension, heart failure, myocardial infarction, ventricular  
 CC hypertrophy, vascular diseases, aneurysm, embolism, thrombosis, coronary  
 CC artery disease, arteriosclerosis and/or atherosclerosis, and  
 CC hypersensitivity reactions, sepsis, autoimmune diseases, inflammatory  
 CC arthritis, cancer, wounds, viral, bacterial or fungal infection, Chronic  
 CC obstructive pulmonary disease (COPD) and enterocolitis (many other  
 CC diseases and disorders are listed in the specification). The  
 CC polynucleotides are also useful for chromosome identification. Antibodies  
 CC against the proteins may be utilised for immunophenotyping of cell lines  
 CC and biological samples. The present sequence represents a polymorphic  
 CC variant of one of the proteins listed above

XX Sequence 407 AA;

Query Match 100.0%; Score 114; DB 5; Length 407;  
 Best Local Similarity 100.0%; Pred. No. 3.5e-10;  
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFASMAAFNTVVNF 23  
 Db ||||| 68 NYFLVNLAFASMAAFNTVVNF 90

RESULT 13

ABG77000

ID ABG77000 standard; protein; 407 AA.

AC ABG77000;

DT 05-NOV-2002 (first entry)

DE Human tachykinin receptor 1 polymorphic sequence.

XX Aminopeptidase P; XPNP2; bradykinin receptor B1; human; BDKRB1;  
 KW tachykinin receptor B1; TACR1; C1 esterase inhibitor; C1NH; kallikrein 1;  
 KW KUK1; bradykinin receptor B2; BDKRB2; gene therapy;  
 KW angiotensin converting enzyme 2; ACE2; protease inhibitor 4; P14;  
 KW polymorphism; haemangioma; tumour; sarcoma; Crohn's disease; trachoma;  
 KW cardiovascular disease; angina pectoris; hypertension; heart failure;  
 KW myocardial infarction; ventricular hypertrophy; vascular disease;  
 KW aneurysm; embolism; thrombosis; coronary artery disease; angioedema;  
 KW arteriosclerosis; atherosclerosis; hypersensitivity; sepsis;  
 KW autoimmune disease; inflammatory arthritis; cancer; wound;  
 KW viral infection; bacterial infection; fungal infection; COPD;  
 KW Chronic obstructive pulmonary disease; enterocolitis.

XX Homo sapiens.

OS WO200261131-A2.

PN 08-AUG-2002.

XX 03-DEC-2001; 2001WO-US047235.

XX 04-DEC-2000; 2000US-0251015P.

PR 23-JAN-2001; 2001US-0263678P.

PR 02-MAR-2001; 2001US-0273037P.

XX (BRIM ) BRISTOL-MYERS SQUIBB CO.  
 PA (TSUC/) TSUCHIHASHI Z.  
 PA (HUI/) HUI L.

XX

PI Tsuchihashi Z, Hui L, Zerba KE, Ma-Edmonds M, Perrone MH;  
 Swanson BN, Powell JR;

XX WPI: 2002-619265/66.  
 DR N-PSDB; ABS60104.

XX New isolated nucleic acid with at least one polymorphic position, useful  
 PT for detecting, diagnosing and treating disorders such as angioedema,  
 PT cancer, viral, bacterial or fungal infection, cardiovascular and  
 PT autoimmune diseases.

PS Disclosure; Fig 22; 977pp; English.

XX The invention relates to an isolated nucleic acid from a human gene  
 CC encoding aminopeptidase P (XPNP2), bradykinin receptor B1 (BDKRB1),  
 CC tachykinin receptor B1 (TACR1), C1 esterase inhibitor (C1NH), kallikrein  
 CC 1 (KUK1), bradykinin receptor B2 (BDKRB2), angiotensin converting enzyme  
 CC 2 (ACE2) or protease inhibitor 4 (P14), comprising at least one  
 CC polymorphic position. Also included are (1) a probe that hybridises to a  
 CC polymorphic position as provided in the detailed summary of single  
 CC nucleotide polymorphisms comprising additional 5' and 3' flanking genomic  
 CC sequence; (2) analysing (M1) at least one nucleic acid sample comprising  
 CC obtaining the sample from one or more individuals and determining the  
 CC nucleic acid sequence at one or more polymorphic positions in a gene  
 CC encoding a protein selected from the group above; (3) constructing (M2)  
 CC haplotypes using the genes comprising grouping at least two nucleic acids  
 CC ; (4) identifying (M3) an individual at risk of developing a disorder  
 CC upon administration of an ACE inhibitor and/or vasopeptidase inhibitor  
 CC using the polymorphic data; (5) a library of nucleic acids, each of which  
 CC comprises one or more polymorphic positions within a gene encoding a  
 CC human protein selected from the group above; and (6) genotyping (M4) an  
 CC individual comprising obtaining a nucleic acid sample, determining the  
 CC nucleotide present in at least one polymorphic position, and comparing at  
 CC least one position with a known data set. The genes, (M1, M2, M3 and M4)  
 CC and compositions are useful for detecting, diagnosing, treating,  
 CC preventing various disorders such as angioedema and diseases which  
 CC involve angiogenesis like haemangiomas, tumours, sarcomas, Crohn's  
 CC disease, trachomas, and cardiovascular diseases like angina pectoris,  
 CC hypertension, heart failure, myocardial infarction, ventricular  
 CC hypertrophy, vascular diseases, aneurysm, embolism, thrombosis, coronary  
 CC artery disease, arteriosclerosis and/or atherosclerosis, and  
 CC hypersensitivity reactions, sepsis, autoimmune diseases, inflammatory  
 CC arthritis, cancer, wounds, viral, bacterial or fungal infection, Chronic  
 CC obstructive pulmonary disease (COPD) and enterocolitis (many other  
 CC diseases and disorders are listed in the specification). The  
 CC polynucleotides are also useful for chromosome identification. Antibodies  
 CC against the proteins may be utilised for immunophenotyping of cell lines  
 CC and biological samples. The present sequence represents polymorphic  
 CC variants of one of the proteins listed above

XX Sequence 407 AA;

Query Match 100.0%; Score 114; DB 5; Length 407;

Best Local Similarity 100.0%; Pred. No. 3.5e-10;

Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFASMAAFNTVVNF 23

Db ||||| 68 NYFLVNLAFASMAAFNTVVNF 90

RESULT 14

AAU91345

ID AAU91345 standard; protein; 407 AA.

XX AAU91345;

AC AAU91345;

DT 18-JUN-2002 (first entry)

XX Neurokinin 1 receptor (NK-1) #4.

XX Human; neurokinin receptor-1; NK-1; dermatological disorder;

immune disorder; autoimmune disorder; cardiovascular disorder; vascular disorder; airway disorder; neuropathic disorder; pain; psychiatric disorder; central nervous system disorder; inflammation; respiratory condition; ophthalmic condition; intestinal condition; demyelinating disease; small cell lung cancer; depression; hypersensitivity disorder; allergy; vasospastic disease; alcoholism; neurodegenerative disorder; acquired immune deficiency syndrome; AIDS; neuro-pathological disorder; stress; receptor.

OS Homo sapiens.

XX WO200213799-A2.

PN 21-FEB-2002.

XX 17-AUG-2001; 2001WO-IB001510.

PF 18-AUG-2000; 2000US-0226086P.

PR (UYMC-) UNIV MCGILL.

XX Henry JL, Cahill CM, Yashpal K;

PI WPI; 2002-241835/29.

XX N-PSDB; ABK63836.

DR Treating pathological condition involving neurokinin receptor-1, e.g. pain or inflammation, by administering oligonucleotide or a non-nucleotide disruptor compound which modulate NK-1 receptor biosynthetic pathway.

XX Example 18; Page 64; 100pp; English.

PS The invention relates to a method of treating a pathological condition characterised partially by involvement of neurokinin receptor-1 (NK-1) receptor, especially treating, attenuating or preventing pain or inflammatory condition. The method comprises administering to a mammal, a compound chosen from an oligonucleotide, its analogue, and a disruptor which interferes with function or production of NK-1 receptors. The method is useful for treating a pathological condition characterised by involvement of NK-1 receptor such as dermatological, immune, autoimmune, cardiovascular, vascular disorders (e.g. migraine), airway, neuropathic, psychiatric and central nervous system disorders (e.g. anxiety, psychosis, schizophrenia), gut inflammation, arthritis, and central or peripheral aspects of chronic or acute pain, and for treating, attenuating or preventing pain or inflammation such as peripheral, chronic, acute pain or inflammation, neuropathic pain, inflammation or pain relating to psychiatric disorders and central nervous system disorders, including hyperalgesia, allodynia, neuralgia and dysesthesia in a mammal, in particular human. NK-1 receptor related disorders, diseases, or pathological conditions treatable by this method include respiratory conditions (e.g. asthma, allergic rhinitis), ophthalmic conditions (e.g. conjunctivitis), cutaneous/dermatological conditions (allergic dermatitis), intestinal conditions (e.g. ulcerative colitis and Crohn's disease), cardiovascular conditions (stroke), chronic gastrointestinal tract inflammation, and inflammatory diseases such as inflammatory bowel diseases. Other disorders and diseases include cardiovascular pathologies including stroke, chronic inflammatory diseases such as rheumatoid arthritis, demyelinating diseases such as multiple sclerosis, small cell lung cancer, depression, hypersensitivity disorders such as allergies and poison ivy, vasospastic diseases such as angina, addiction disorders such as alcoholism, neurodegenerative disorders such as acquired immune deficiency syndrome (AIDS) related dementia, epilepsy, Alzheimer's disease, and other neuro-pathological disorders such as peripheral neuropathy, oedema, stress related and somatic disorders, and osteoarthritis. Antisense oligonucleotides effectively treat chronic conditions and other pathological states without the co-administration of substance P, and reduce the number of activated receptors while not reducing the number of quiescent NK-1 receptors. Receptors not chronically stimulated are less affected, reducing side effects of treatment. AAU91342-AAU91346 represent NK-1 receptor amino acid sequences of the invention

SQ Sequence 407 AA;

Query Match 100.0%; Score 114; DB 5; Length 407;

Best Local Similarity 100.0%; Prad. No. 3.5e-10;

Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVNF 23  
|||||

Db 68 NYFLVNLAFAEASMAAFNTVNF 90

RESULT 15

AAU91344

ID AAU91344 standard; protein; 407 AA.

XX AC AAU91344;

XX 18-JUN-2002 (first entry)

DT Neurokinin 1 receptor (NK-1) #3.

DE Human; neurokinin receptor-1; NK-1; dermatological disorder; immune disorder; autoimmune disorder; cardiovascular disorder; vascular disorder; airway disorder; neuropathic disorder; pain; psychiatric disorder; central nervous system disorder; inflammation; respiratory condition; ophthalmic condition; intestinal condition; demyelinating disease; small cell lung cancer; depression; hypersensitivity disorder; allergy; vasospastic disease; alcoholism; neurodegenerative disorder; acquired immune deficiency syndrome; AIDS; neuro-pathological disorder; stress; receptor.

XX OS Homo sapiens.

XX WO200213799-A2.

PN 21-FEB-2002.

XX 17-AUG-2001; 2001WO-IB001510.

PF 18-AUG-2000; 2000US-0226086P.

PR (UYMC-) UNIV MCGILL.

XX Henry JL, Cahill CM, Yashpal K;

PI WPI; 2002-241835/29.

XX N-PSDB; ABK63835.

DR Treating pathological condition involving neurokinin receptor-1, e.g. pain or inflammation, by administering oligonucleotide or a non-nucleotide disruptor compound which modulate NK-1 receptor biosynthetic pathway.

XX Claim 7; Page 61; 100pp; English.

PS The invention relates to a method of treating a pathological condition characterised partially by involvement of neurokinin receptor-1 (NK-1) receptor, especially treating, attenuating or preventing pain or inflammatory condition. The method comprises administering to a mammal, a compound chosen from an oligonucleotide, its analogue, and a disruptor which interferes with function or production of NK-1 receptors. The method is useful for treating a pathological condition characterised by involvement of NK-1 receptor such as dermatological, immune, autoimmune, cardiovascular, vascular disorders (e.g. migraine), airway, neuropathic, psychiatric and central nervous system disorders (e.g. anxiety, psychosis, schizophrenia), gut inflammation, arthritis, and central or peripheral aspects of chronic or acute pain, and for treating, attenuating or preventing pain or inflammation such as peripheral, chronic, acute pain or inflammation, neuropathic pain, inflammation or pain relating to psychiatric disorders and central nervous system disorders, including hyperalgesia, allodynia, neuralgia and dysesthesia in a mammal, in particular human. NK-1 receptor related disorders, diseases, or pathological conditions treatable by this method include

CC respiratory conditions (e.g. asthma, allergic rhinitis), ophthalmic  
CC conditions (e.g. conjunctivitis), cutaneous/dermatological conditions  
CC (allergic dermatitis), intestinal conditions (e.g. ulcerative colitis and  
CC Crohn's disease), cardiovascular conditions (stroke), chronic  
CC gastrointestinal tract inflammation, and inflammatory diseases such as  
CC inflammatory bowel diseases. Other disorders and diseases include  
CC cardiovascular pathologies including stroke, chronic inflammatory  
CC diseases such as rheumatoid arthritis, demyelinating diseases such as  
CC multiple sclerosis, small cell lung cancer, depression, hypersensitivity  
CC disorders such as allergies and poison ivy, vasospastic diseases such as  
CC angina, addiction disorders such as alcoholism, neurodegenerative  
CC disorders such as acquired immune deficiency syndrome (AIDS) related  
CC dementia, epilepsy, Alzheimer's disease, and other neuro-pathological  
CC disorders such as peripheral neuropathy, oedema, stress related and  
CC somatic disorders, and osteoarthritis. Antisense oligonucleotides  
CC effectively treat chronic conditions and other pathological states  
CC without the co-administration of substance P, and reduce the number of  
CC activated receptors while not reducing the number of quiescent NK-1  
CC receptors. Receptors not chronically stimulated are less affected,  
CC reducing side effects of treatment. AAU91342-AAU91346 represent NK-1  
CC receptor amino acid sequences of the invention  
XX  
SQ Sequence 407 AA;

Query Match 100.0%; Score 114; DB 5; Length 407;  
Best Local Similarity 100.0%; Pred. No. 3.5e-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 NYELVNLAFAEASMAAFNTVVNF 23  
Db 68 NYELVNLAFAEASMAAFNTVVNF 90

Search completed: April 19, 2005, 14:47:00  
Job time : 177 secs



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OM protein - protein search, using sw model

Run on: April 19, 2005, 14:43:54 ; Search time 47 Seconds  
(without alignments)  
36.530 Million cell updates/sec

Title: US-10-665-184-24  
Perfect score: 114  
Sequence: 1 NYFLVNLAFASMAAFNTVVNF 23

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents\_AA.\*

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- 2: /cgn2\_6/ptodata/1/iaa/5B\_COMB.pep.\*
- 3: /cgn2\_6/ptodata/1/iaa/6A\_COMB.pep.\*
- 4: /cgn2\_6/ptodata/1/iaa/6B\_COMB.pep.\*
- 5: /cgn2\_6/ptodata/1/iaa/PTUS\_COMB.pep.\*
- 6: /cgn2\_6/ptodata/1/iaa/backfiles.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	114	100.0	311	1	US-07-701-935-26
2	114	100.0	407	1	US-08-117-965-26
3	114	100.0	407	4	US-09-826-509-525
4	114	100.0	407	5	PCT-US92-06532-3
5	109	95.6	372	1	US-07-937-609-20
6	109	95.6	372	3	US-08-029-170-20
7	109	95.6	372	4	US-09-443-745-20
8	109	95.6	407	5	PCT-US92-06532-7
9	105	92.1	465	3	US-08-090-369-1
10	105	92.1	465	3	US-09-482-971-1
11	105	92.1	465	4	US-09-826-509-529
12	104	91.2	407	2	US-08-390-000A-6
13	100	87.7	336	1	US-08-118-270-50
14	100	87.7	336	5	PCT-US93-08528-50
15	100	87.7	411	1	US-07-937-609-21
16	100	87.7	411	3	US-08-029-170-21
17	100	87.7	411	4	US-09-443-745-21
18	100	87.7	451	3	US-08-430-286A-10
19	85	74.6	440	3	US-08-430-286A-9
20	79	69.3	384	2	US-08-103-170-10
21	79	69.3	387	1	US-08-196-989B-14
22	79	69.3	387	2	US-08-760-936-14
23	79	69.3	387	4	US-09-225-024-14
24	79	69.3	398	4	US-09-826-509-527
25	78	68.4	369	1	US-07-937-609-19
26	78	68.4	369	3	US-08-029-170-19
27	78	68.4	369	4	US-09-443-745-19

28	65	57.0	391	4	US-09-721-870-34	Sequence 34, Appl
29	62	54.4	519	4	US-09-693-746-10	Sequence 10, Appl
30	62	54.4	522	4	US-09-693-746-12	Sequence 12, Appl
31	60	52.6	341	1	US-08-118-270-48	Sequence 48, Appl
32	60	52.6	341	5	PCT-US93-08528-48	Sequence 48, Appl
33	59	51.8	374	4	US-09-721-870-24	Sequence 24, Appl
34	51	44.7	501	1	US-08-722-001-14	Sequence 14, Appl
35	51	44.7	501	2	US-08-467-568-9	Sequence 9, Appl
36	51	44.7	501	2	US-09-030-582-9	Sequence 9, Appl
37	51	44.7	501	4	US-09-688-415-7	Sequence 7, Appl
38	51	44.7	572	1	US-08-334-698-2	Sequence 2, Appl
39	51	44.7	572	1	US-08-228-932-2	Sequence 2, Appl
40	51	44.7	572	1	US-08-468-939-2	Sequence 2, Appl
41	51	44.7	572	1	US-08-722-001-30	Sequence 30, Appl
42	51	44.7	572	2	US-08-406-855A-2	Sequence 2, Appl
43	51	44.7	572	2	US-08-722-190-2	Sequence 2, Appl
44	51	44.7	572	3	US-08-244-354-2	Sequence 2, Appl
45	51	44.7	572	3	US-09-206-899-2	Sequence 2, Appl

ALIGNMENTS

RESULT 1  
US-07-701-935-26  
; Sequence 26, Application US/07701935  
; Patent No. 5336595  
; GENERAL INFORMATION:  
; APPLICANT: Strader, C. D.  
; APPLICANT: Fong, T. M.  
; TITLE OF INVENTION: Method of Using Human Neurokinin-1  
; TITLE OF INVENTION: Receptor Short Form  
; NUMBER OF SEQUENCES: 27  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Merck & Co., Inc.  
; STREET: P.O. Box 2000  
; CITY: Rahway  
; STATE: New Jersey  
; COUNTRY: US  
; ZIP: 07065-0907  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patent In Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/07701,935  
; FILING DATE: 19910517  
; CLASSIFICATION: 435  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Nicholson, William H.  
; REGISTRATION NUMBER: 25,147  
; REFERENCE/DOCKET NUMBER: 18409  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (908) 594-5315  
; TELEFAX: (908) 594-4720  
; INFORMATION FOR SEQ ID NO: 26:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 311 amino acids  
; TYPE: AMINO ACID  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE:  
US-07-701-935-26

Query Match 100.0%; Score 114; DB 1; Length 311;  
Best Local Similarity 100.0%; Pred. No. 8; Seq-10;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFASMAAFNTVVNF 23

Db 68 NYFLVNLAFASMAAFNTVVNF 90

RESULT 2  
US-08-117-965-26  
; Sequence 26, Application US/08117965  
; Patent No. 5484886  
; GENERAL INFORMATION:  
; APPLICANT: Tung, Fong M.  
; TITLE OF INVENTION: Human Neurokinin-1 Receptor  
; NUMBER OF SEQUENCES: 27  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Merck & Co., Inc.  
; STREET: P.O. Box 2000  
; CITY: Rahway  
; STATE: New Jersey  
; COUNTRY: US  
; ZIP: 07065-0907  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/117,965  
; FILING DATE:  
; CLASSIFICATION: 514  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 691,197  
; FILING DATE: 25-APR-1991  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Nicholson, William H.  
; REGISTRATION NUMBER: 25,147  
; REFERENCE/DOCKET NUMBER: 18387.  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (908) 594-5315  
; TELEFAX: (908) 594-4720  
; INFORMATION FOR SEQ ID NO: 26:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 407 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE:  
US-08-117-965-26  
  
Query Match 100.0%; Score 114; DB 1; Length 407;  
Best Local Similarity 100.0%; Pred. No. 1.2e-09;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
Qy 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 68 NYFLVNLAFAEASMAAFNTVVNF 90

RESULT 3  
US-09-826-509-525  
; Sequence 525, Application US/09826509  
; Patent No. 6806054  
; GENERAL INFORMATION:  
; APPLICANT: Lehmann-Bruinsema, Karin  
; APPLICANT: Liaw, Chen W.  
; APPLICANT: Lin, I-Lin  
; TITLE OF INVENTION: No. 6806054-Endogenous, Constitutively Activated Known G  
; FILE REFERENCE: AREN-207  
; CURRENT APPLICATION NUMBER: US/09/826,509  
; CURRENT FILING DATE: 2001-04-05  
; PRIOR APPLICATION NUMBER: 60/195,747  
; PRIOR FILING DATE: 2000-04-07  
; PRIOR APPLICATION NUMBER: 09/170,496  
; PRIOR FILING DATE: 1998-10-13  
; NUMBER OF SEQ ID NOS: 589  
; SOFTWARE: PatentIn Version 2.1

; SEQ ID NO 525  
; LENGTH: 407  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-09-826-509-525  
  
Query Match 100.0%; Score 114; DB 4; Length 407;  
Best Local Similarity 100.0%; Pred. No. 1.2e-09;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
Qy 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 68 NYFLVNLAFAEASMAAFNTVVNF 90

RESULT 4  
PCT-US92-06532-3  
; Sequence 3, Application PC/TUS9206532  
; GENERAL INFORMATION:  
; APPLICANT: Krause, James E.  
; TITLE OF INVENTION: Human Substance P Receptor  
; NUMBER OF SEQUENCES: 7  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Scott J. Meyer, Monsanto Co., A3SD  
; STREET: 800 N. Lindbergh Blvd.  
; CITY: St. Louis  
; STATE: Missouri  
; COUNTRY: U.S.A  
; ZIP: 63167  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: PCT/US92/06532  
; FILING DATE: 19920805  
; CLASSIFICATION: 435  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Meyer, Scott J.  
; REGISTRATION NUMBER: 25,275  
; REFERENCE/DOCKET NUMBER: 07-24 (776)A  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (314)694-3117  
; INFORMATION FOR SEQ ID NO: 3:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 407 amino acids  
; TYPE: AMINO ACID  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
PCT-US92-06532-3  
  
Query Match 100.0%; Score 114; DB 5; Length 407;  
Best Local Similarity 100.0%; Pred. No. 1.2e-09;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
Qy 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 68 NYFLVNLAFAEASMAAFNTVVNF 90

RESULT 5  
US-07-937-609-20  
; Sequence 20, Application US/07937609  
; Patent No. 5319073  
; GENERAL INFORMATION:  
; APPLICANT: WANK, Stephen A.  
; TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF  
; TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA  
; NUMBER OF SEQUENCES: 29  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Foley & Lardner  
; STREET: 1800 Diagonal Road, Suite 500

CITY: Alexandria  
STATE: VA  
COUNTRY: USA  
ZIP: 22313-0299  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/07/937,609  
FILING DATE: 19920902  
CLASSIFICATION: 436  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/831,248  
FILING DATE: 07-FEB-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/861,769  
FILING DATE: 01-APR-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/928,033  
FILING DATE: 11-AUG-1992  
ATTORNEY/AGENT INFORMATION:  
NAME: BENT, Stephen A.  
REGISTRATION NUMBER: 29,768  
REFERENCE/DOCKET NUMBER: 40399/166 NIHD  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (703)836-9300  
TELEFAX: (703)683-4109  
TELEX: 899149  
INFORMATION FOR SEQ ID NO: 20:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 372 amino acids  
TYPE: AMINO ACID  
TOPOLOGY: linear  
IMMEDIATE SOURCE:  
CLONE: rat substance P receptor  
US-07-937-609-20

Query Match 95.6%; Score 109; DB 1; Length 372;  
Best Local Similarity 95.7%; Pred. No. 6.2e-09;  
Matches 22; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Oy 1 NYFLVNLAFASMAAFNTVNF 23  
|||||  
Db 68 NYFLVNLAFASMAAFNTVNF 90

RESULT 6  
US-08-029-170-20  
Sequence 20, Application US/08029170  
Patent No. 6169173  
GENERAL INFORMATION:  
APPLICANT: WANK, Stephen A.  
TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF  
TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA  
NUMBER OF SEQUENCES: 32  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Foley & Lardner  
STREET: 1800 Diagonal Road, Suite 500  
CITY: Alexandria  
STATE: VA  
COUNTRY: USA  
ZIP: 22313-0299  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/029,170  
FILING DATE: 19930310  
CLASSIFICATION: 435

PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/937,609  
FILING DATE: 02-SEP-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/928,033  
FILING DATE: 11-AUG-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/861,769  
FILING DATE: 01-APR-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/831,248  
FILING DATE: 07-FEB-1992  
ATTORNEY/AGENT INFORMATION:  
NAME: BENT, Stephen A.  
REGISTRATION NUMBER: 29,768  
REFERENCE/DOCKET NUMBER: 40399/166 NIHD  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (703)836-9300  
TELEFAX: (703)683-4109  
TELEX: 899149  
INFORMATION FOR SEQ ID NO: 20:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 372 amino acids  
TYPE: AMINO ACID  
TOPOLOGY: linear  
IMMEDIATE SOURCE:  
CLONE: rat substance P receptor  
US-08-029-170-20

Query Match 95.6%; Score 109; DB 3; Length 372;  
Best Local Similarity 95.7%; Pred. No. 6.2e-09;  
Matches 22; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Oy 1 NYFLVNLAFASMAAFNTVNF 23  
|||||  
Db 68 NYFLVNLAFASMAAFNTVNF 90

RESULT 7  
US-09-443-745-20  
Sequence 20, Application US/09443745  
Patent No. 6706493  
GENERAL INFORMATION:  
APPLICANT: WANK, Stephen A.  
TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF  
TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA  
NUMBER OF SEQUENCES: 32  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Foley & Lardner  
STREET: 1800 Diagonal Road, Suite 500  
CITY: Alexandria  
STATE: VA  
COUNTRY: USA  
ZIP: 22313-0299  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/443,745  
FILING DATE:  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 08/029,170  
FILING DATE: 10-MAR-1993  
APPLICATION NUMBER: US 07/937,609  
FILING DATE: 02-SEP-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/928,033  
FILING DATE: 11-AUG-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/861,769

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; FILING DATE: 01-APR-1992
; PRIOR APPLICATION DATA: US 07/831,248
; APPLICATION NUMBER: 07-FEB-1992
; FILING DATE: 07-FEB-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: BENT, Stephen A.
; REGISTRATION NUMBER: 29,768
; REFERENCE/DOCKET NUMBER: 40399/166 NIHD
; TELEPHONE: (703)836-9300
; TELEFAX: (703)836-4109
; TELEX: 899149
; INFORMATION FOR SEQ ID NO: 20:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 372 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; CLONE: rat substance P receptor
; US-09-443-745-20

Query Match 95.6%; Score 109; DB 4; Length 372;
Best Local Similarity 95.7%; Pred. No. 6.2e-09;
Matches 22; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVNF 23
Db 68 NYFLVNLAFAEACMAAFNTVNF 90

RESULT 8
PCT-US92-06532-7
; Sequence 7, Application PC/TUS9206532
; GENERAL INFORMATION:
; APPLICANT: Krause, James E.
; TITLE OF INVENTION: Human Substance P Receptor
; NUMBER OF SEQUENCES: 7
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Scott J. Meyer, Monsanto Co., A3SD
; STREET: 800 N. Lindbergh Blvd.
; CITY: St. Louis
; STATE: Missouri
; COUNTRY: U.S.A.
; ZIP: 63167
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US92/06532
; FILING DATE: 19920805
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Meyer, Scott J.
; REGISTRATION NUMBER: 25,275
; REFERENCE/DOCKET NUMBER: 07-24 (776)A
; TELEPHONE: (314)694-3117
; INFORMATION FOR SEQ ID NO: 7:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 407 amino acids
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; PCT-US92-06532-7

Query Match 95.6%; Score 109; DB 5; Length 407;
Best Local Similarity 95.7%; Pred. No. 6.8e-09;
Matches 22; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVNF 23
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Db 68 NYFLVNLAFAEACMAAFNTVNF 90

RESULT 9
US-08-090-369-1
; Sequence 1, Application US/08090369
; Patent No. 6258943
; GENERAL INFORMATION:
; APPLICANT: Fong, T.M.
; APPLICANT: Huang, R-R. C.
; APPLICANT: Strader, C.D.
; TITLE OF INVENTION: Human Neurokinin-3 Receptor
; NUMBER OF SEQUENCES: 20
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Merck & Co., Inc.
; STREET: P.O. Box 2000
; CITY: Rahway
; STATE: New Jersey
; COUNTRY: USA
; ZIP: 07065-0907
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/090,369
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/07/851,974
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Thies, J. E.
; REGISTRATION NUMBER: P-35,382
; REFERENCE/DOCKET NUMBER: 18685
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (908) 594-3904
; TELEFAX: (908) 594-4720
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 465 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-090-369-1

Query Match 92.1%; Score 105; DB 3; Length 465;
Best Local Similarity 87.0%; Pred. No. 3.3e-08;
Matches 20; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVNF 23
Db 121 NYFLVNLAFAEASMAAFNTVNF 143

RESULT 10
US-09-482-971-1
; Sequence 1, Application US/09482971
; Patent No. 6348330
; GENERAL INFORMATION:
; APPLICANT: Fong, T.M.
; APPLICANT: Huang, R-R. C.
; APPLICANT: Strader, C.D.
; TITLE OF INVENTION: Human Neurokinin-3 Receptor
; NUMBER OF SEQUENCES: 20
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Merck & Co., Inc.
; STREET: P.O. Box 2000
; CITY: Rahway
; STATE: New Jersey
```

COUNTRY: USA  
ZIP: 07065-0907  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/482,971  
FILING DATE:  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 08/090,369  
FILING DATE:  
ATTORNEY/AGENT INFORMATION:  
NAME: Thies, J. E.  
REGISTRATION NUMBER: P-35,182  
REFERENCE/DOCKET NUMBER: 18685  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (908) 594-3904  
TELEFAX: (908) 594-4720  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 465 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-09-482-971-1

Query Match 92.1%; Score 105; DB 3; Length 465;  
Best Local Similarity 87.0%; Pred. No. 3.3e-08;  
Matches 20; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFASMAAFTVNVF 23  
Db 121 NYFLVNLAFSDASMAAFTLVNF 143

RESULT 11  
US-09-826-509-529  
Sequence 529, Application US/09826509  
Patent No. 6806054  
GENERAL INFORMATION:  
APPLICANT: Lehmann-Bruinsma, Karin  
APPLICANT: Liaw, Chen W.  
APPLICANT: Lin, I-Lin  
TITLE OF INVENTION: No. 6806054-Endogenous, Constitutively Activated Known G  
FILE REFERENCE: AREN-207  
CURRENT APPLICATION NUMBER: US/09/826,509  
CURRENT FILING DATE: 2001-04-05  
PRIOR APPLICATION NUMBER: 60/195,747  
PRIOR FILING DATE: 2000-04-07  
PRIOR APPLICATION NUMBER: 09/170,496  
PRIOR FILING DATE: 1998-10-13  
NUMBER OF SEQ ID NOS: 589  
SOFTWARE: PatentIn Version 2.1  
SEQ ID NO 529  
LENGTH: 465  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-09-826-509-529

Query Match 92.1%; Score 105; DB 4; Length 465;  
Best Local Similarity 87.0%; Pred. No. 3.3e-08;  
Matches 20; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFASMAAFTVNVF 23  
Db 121 NYFLVNLAFSDASMAAFTLVNF 143

RESULT 12  
US-08-390-000A-6  
Sequence 6, Application US/08390000A  
Patent No. 5985583  
GENERAL INFORMATION:  
APPLICANT: Sealfon, Stuart C.  
TITLE OF INVENTION: Cloning and Expression of  
TITLE OF INVENTION: Gonadotropin-Releasing Hormone Receptor  
NUMBER OF SEQUENCES: 8  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Pennie & Edmonds LLP  
STREET: 1155 Avenue of the Americas  
CITY: New York  
STATE: New York  
COUNTRY: U.S.A.  
ZIP: 10036-2711  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/390,000A  
FILING DATE: 17-FEB-1995  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Mirock, S. Leslie  
REGISTRATION NUMBER: 18,872  
REFERENCE/DOCKET NUMBER: 6923-052  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 212 790-9090  
TELEFAX: 212 869-8864/9741  
TELEX: 66141 PENNIE  
INFORMATION FOR SEQ ID NO: 6:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 407 amino acids  
TYPE: amino acid  
TOPOLOGY: unknown  
MOLECULE TYPE: protein  
US-08-390-000A-6

Query Match 91.2%; Score 104; DB 2; Length 407;  
Best Local Similarity 91.3%; Pred. No. 4e-08;  
Matches 21; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFASMAAFTVNVF 23  
Db 68 NYFLVNLAFACMAAFTVNVF 90

RESULT 13  
US-08-118-270-50  
Sequence 50, Application US/08118270  
Patent No. 5508384  
GENERAL INFORMATION:  
APPLICANT: Murphy, Randall B.  
APPLICANT: Schuster, David I.  
TITLE OF INVENTION: POLYPEPTIDES OF G-COUPLED PROTEIN  
TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF  
NUMBER OF SEQUENCES: 348  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: BROWDY AND NEIMARK  
STREET: 419 Seventh Street, N.W., Suite 300  
CITY: Washington  
STATE: D.C.  
COUNTRY: USA  
ZIP: 20004  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:

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; APPLICATION NUMBER: US/08/118,270
; FILING DATE: 09-SEP-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/943,236
; FILING DATE: 10-SEP-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Townsend, Kevin G.
; REGISTRATION NUMBER: 34,033
; REFERENCE/DOCKET NUMBER: MURPHY=2A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-628-5197
; TELEFAX: 202-737-3528
; TELEX: 248633
; INFORMATION FOR SEQ ID NO: 50:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 336 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
;
US-08-118-270-50

Query Match      87.7%; Score 100; DB 1; Length 336;
Best Local Similarity 78.3%; Pred. No. 1.3e-07;
Matches 18; Conservative 5; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFSAASMAAFNTVNF 23
Db 37 NYFLVNLAFSDASVAAFNTLNF 59

RESULT 14
PCT-US93-08528-50
; Sequence 50, Application PC/TUS9308528
; GENERAL INFORMATION:
; APPLICANT: New York University
; TITLE OF INVENTION: POLYPEPTIDES OF G-COUPLED PROTEIN
; TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF
; NUMBER OF SEQUENCES: 348
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: BROWDY AND NEIMARK
; STREET: 419 Seventh Street, N.W., Suite 300
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20004
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US93/08528
; FILING DATE: 09-SEP-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/943,236
; FILING DATE: 10-SEP-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Townsend, Kevin G.
; REGISTRATION NUMBER: 34,033
; REFERENCE/DOCKET NUMBER: MURPHY=2 PCT
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-628-5197
; TELEFAX: 202-737-3528
; TELEX: 248633
; INFORMATION FOR SEQ ID NO: 50:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 336 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
;
PCT-US93-08528-50

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Query Match      87.7%; Score 100; DB 5; Length 336;
Best Local Similarity 78.3%; Pred. No. 1.3e-07;
Matches 18; Conservative 5; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFSAASMAAFNTVNF 23
Db 37 NYFLVNLAFSDASVAAFNTLNF 59

RESULT 15
US-07-937-609-21
; Sequence 21, Application US/07937609
; Patent No. 5319073
; GENERAL INFORMATION:
; APPLICANT: WANK, Stephen A.
; TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF
; TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA
; NUMBER OF SEQUENCES: 29
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Foley & Lardner
; STREET: 1800 Diagonal Road, Suite 500
; CITY: Alexandria
; STATE: VA
; COUNTRY: USA
; ZIP: 22313-0299
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/937,609
; FILING DATE: 19920902
; CLASSIFICATION: 436
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/831,248
; FILING DATE: 07-FEB-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/861,769
; FILING DATE: 01-APR-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/928,033
; FILING DATE: 11-AUG-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: BENT, Stephen A.
; REGISTRATION NUMBER: 29,768
; REFERENCE/DOCKET NUMBER: 40399/166 NIHD
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (703)836-9300
; TELEFAX: (703)683-4109
; TELEX: 899149
; INFORMATION FOR SEQ ID NO: 21:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 411 amino acids
; TYPE: AMINO ACID
; TOPOLOGY: linear
;
US-07-937-609-21

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Query Match      87.7%; Score 100; DB 1; Length 411;
Best Local Similarity 78.3%; Pred. No. 1.7e-07;
Matches 18; Conservative 5; Mismatches 0; Indels 0; Gaps 0;

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QY 1 NYFLVNLAFSAASMAAFNTVNF 23
Db 108 NYFLVNLAFSDASVAAFNTLNF 130

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Search completed: April 19, 2005, 14:52:39
Job time : 48 secs

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RESULT 2  
NK1R\_CAVPO  
ID\_NK1R\_CAVPO  
AC P30547;  
STANDARD;  
PRT; 407 AA.

DT 01-APR-1993 (Rel. 25, Created)  
 DT 01-APR-1993 (Rel. 25, Last sequence update)  
 DT 25-OCT-2004 (Rel. 45, Last annotation update)  
 DE Substance-P receptor (SPR) (NK-1 receptor) (NK-1R) (Tachykinin  
 DE receptor 1).  
 DN Names=TAC1R1; Synonyms=TAC1R;  
 OS Cavia porcellus (Guinea pig).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.  
 OX NCBI\_TaxID=10141;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Uterus;  
 RX MEDLINE=92256498; PubMed=1374648; DOI=10.1016/0167-4781(92)90105-9;  
 RA Gorbulev V., Akhundova A., Luzius H., Fahrenholz F.;  
 RT "Molecular cloning of substance P receptor cDNA from guinea-pig  
 RT uterus";  
 RL Biochim. Biophys. Acta 1131:99-102(1992).  
 CC -|- FUNCTION: This is a receptor for the tachykinin neuropeptide  
 CC substance P. It is probably associated with G proteins that  
 CC activate a phosphatidylinositol-calcium second messenger system.  
 CC -|- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -|- MISCELLANEOUS: The rank order of affinity of this receptor to  
 CC tachykinins is: substance P > substance K > neuromedin K.  
 CC -|- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
 CC -----  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
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 CC entities requires a license agreement (see <http://www.isb-sib.ch/announce/>)  
 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch).  
 CC -----  
 DR EMBL; X64323; CAA45608.1; -;  
 DR PIR; S23510; S23510.  
 DR InterPro; IPR000276; GPCR\_Rhodopsn.  
 DR InterPro; IPR001681; Neurokin\_receptor.  
 DR InterPro; IPR000046; NK1\_receptor.  
 DR Pfam; PF00001; 7tm 1; 1.  
 DR PRINTS; PR00237; GPCRHOODOPS.  
 DR PRINTS; PR01024; NEUROKININR.  
 DR PRINTS; PR00244; NEUROKININR.  
 DR PROSITE; PS00237; G-PROTEIN\_REC\_P1\_1; 1.  
 DR PROSITE; PS00262; G-PROTEIN\_REC\_P2\_1; 1.  
 KW G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate;  
 KW phosphorylation; Transmembrane.  
 FT DOMAIN 1 31 Extracellular (Potential).  
 FT TRANSMEM 32 54 1 (Potential).  
 FT DOMAIN 55 64 Cytoplasmic (Potential).  
 FT TRANSMEM 65 86 2 (Potential).  
 FT DOMAIN 87 106 Extracellular (Potential).  
 FT TRANSMEM 107 128 3 (Potential).  
 FT DOMAIN 129 148 Cytoplasmic (Potential).  
 FT TRANSMEM 149 169 Extracellular (Potential).  
 FT DOMAIN 170 194 Extracellular (Potential).  
 FT TRANSMEM 195 219 5 (Potential).  
 FT DOMAIN 220 248 Cytoplasmic (Potential).  
 FT TRANSMEM 249 270 6 (Potential).  
 FT DOMAIN 271 283 Extracellular (Potential).  
 FT TRANSMEM 284 308 7 (Potential).  
 FT DOMAIN 309 407 Cytoplasmic (Potential).  
 FT CARBOHYD 14 14 N-linked (GlcNAc...) (Potential).  
 FT CARBOHYD 18 18 N-linked (GlcNAc...) (Potential).  
 FT DISULFID 105 180 By similarity.  
 FT LIPID 322 322 S-palmitoyl cysteine (Potential).  
 SQ SEQUENCE 407 AA; 46257 MW; F8CSD31C4BB45E6B CRC64;  
 Query Match 100.0%; Score 114; DB 1; Length 407;  
 Best Local Similarity 100.0%; Pred. No. 2.2e-09;  
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 68 NYFLVNLAFASMAAFNTVNF 90  
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 RESULT 3  
 NK1R HUMAN STANDARD; PRT; 407 AA.  
 AC P25103;  
 DT 01-MAY-1992 (Rel. 22, Created)  
 DT 01-MAY-1992 (Rel. 22, Last sequence update)  
 DT 25-OCT-2004 (Rel. 45, Last annotation update)  
 DE Substance-P receptor (SPR) (NK-1 receptor) (NK-1R) (Tachykinin  
 DE receptor 1).  
 DN Name=TAC1R1; Synonyms=NK1R, TAC1R;  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 OX NCBI\_TaxID=9606;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=9202856; PubMed=1718267;  
 RA Takeda Y., Chou K.B., Takeda J., Sachais B.S., Krause J.E.;  
 RT "Molecular cloning, structural characterization and functional  
 RT expression of the human substance P receptor";  
 RL Biochem. Biophys. Res. Commun. 179:1232-1240(1991).  
 RN [2]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Lung;  
 RX MEDLINE=92062052; PubMed=1659396;  
 RA Hopkins B., Powell S.J., Danks P., Briggs I., Graham A.;  
 RT "Isolation and characterisation of the human lung NK-1 receptor  
 RT cDNA";  
 RL Biochem. Biophys. Res. Commun. 180:1110-1117(1991).  
 RN [3]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Placenta;  
 RX MEDLINE=92201186; PubMed=1312928;  
 RA Takahashi K., Tanaka A., Hara M., Nakaniishi S.;  
 RT "The primary structure and gene organization of human substance P and  
 RT neuropeptide K receptors";  
 RL Eur. J. Biochem. 204:1025-1033(1992).  
 RN [4]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=92031510; PubMed=1657150;  
 RA Gerard N.P., Garraway L.A., Eddy R.L. Jr., Shows T.B., Iijima H.,  
 RA Paquet J.L., Gerard C.;  
 RT "Human substance P receptor (NK-1): organization of the gene,  
 RT chromosome localization, and functional expression of cDNA clones";  
 RL Biochemistry 30:10640-10646(1991).  
 RN [5]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=92123148; PubMed=1310144;  
 RA Fong T.M., Anderson S.A., Yu H., Huang R.-R.C., Strader C.D.;  
 RT "Differential activation of intracellular effector by two isoforms of  
 RT human neurokinin-1 receptor";  
 RL Mol. Pharmacol. 41:24-30(1992).  
 RN [6]  
 RP SHOWS THAT THERE IS NO SHORT SPLICED ISOFORM.  
 RX PubMed=11864635; DOI=10.1016/S0014-2999(02)01278-5;  
 RA Page N.M., Bell N.J.;  
 RT "The human tachykinin NK1 (short form) and tachykinin NK4 receptor: a  
 RT reappraisal";  
 RL Eur. J. Pharmacol. 437:27-30(2002).  
 RN [7]  
 RP BINDING TO ANTAGONIST CP 96345.  
 RX MEDLINE=93205121; PubMed=8384323; DOI=10.1038/362350a0;  
 RA Fong T.M., Cascieri M.A., Yu H., Bansal A., Swain C., Strader C.D.;  
 RT "Amino-aromatic interaction between histidine 197 of the neurokinin-1  
 RT receptor and CP 96345";  
 RL Nature 362:350-353(1993).  
 CC -|- FUNCTION: This is a receptor for the tachykinin neuropeptide  
 CC substance P. It is probably associated with G proteins that  
 CC activate a phosphatidylinositol-calcium second messenger system.



CC -!- SUBCELLULAR LOCATION: Integral membrane protein.  
CC -!- MISCELLANEOUS: The rank order of affinity of this receptor to  
CC tachykinins is: substance P > substance K > neuromedin K.  
CC -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
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CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
DR EMBL; S62045; AAB20168.2; -  
DR EMBL; M74290; AAA60601.1; -  
DR EMBL; M81797; AAA59933.1; -  
DR EMBL; X65177; AAA46292.1; -  
DR EMBL; X65178; AAA46292.1; JOINED.  
DR EMBL; X65179; AAA46292.1; JOINED.  
DR EMBL; X65180; AAA46292.1; JOINED.  
DR EMBL; X65181; AAA46292.1; JOINED.  
DR EMBL; M76675; AAA59936.1; -  
DR EMBL; M84425; AAA36641.1; -  
DR EMBL; M84426; AAA36644.1; -  
DR PIR; A41134; JQ1274.  
DR Genew; HGNC:11526; TACR1.  
DR MIM; 162323; -  
DR GO; GO:0005887; C:integral to plasma membrane; TAS.  
DR GO; GO:0004995; P:tachykinin receptor activity; TAS.  
DR GO; GO:0009582; P:detection of abiotic stimulus; TAS.  
DR GO; GO:0007200; P:G-protein signaling, coupled to IP3 second . . . ; TAS.  
DR GO; GO:0006954; P:inflammatory response; TAS.  
DR GO; GO:0007638; P:mechanosensory behavior; TAS.  
DR GO; GO:0007217; P:tachykinin signaling pathway; TAS.  
DR InterPro; IPR000276; GPCR\_Rhodopsn.  
DR InterPro; IPR001681; Neurokin\_receptor.  
DR InterPro; IPR000046; NK1\_receptor.  
DR Pfam; PF00003; 7tm.1; 1.  
DR PRINTS; PR00237; GPCR\_RHODOPSIN.  
DR PRINTS; PR01024; NEUROKININR.  
DR PRINTS; PR00244; NEUROKININR.  
DR PROSITE; PS00237; G-PROTEIN\_RECEP\_F1\_1; 1.  
DR PROSITE; PS0262; G-PROTEIN\_RECEP\_F1\_2; 1.  
DR KW G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate;  
FT phosphorylation; Transmembrane.  
KW DOMAIN 1 31 Extracellular (Potential).  
FT TRANSMEM 32 54 1 (Potential).  
FT DOMAIN 55 64 Cytoplasmic (Potential).  
FT TRANSMEM 65 86 2 (Potential).  
FT DOMAIN 87 106 Extracellular (Potential).  
FT TRANSMEM 107 128 3 (Potential).  
FT DOMAIN 129 148 Cytoplasmic (Potential).  
FT TRANSMEM 149 169 4 (Potential).  
FT DOMAIN 170 194 Extracellular (Potential).  
FT TRANSMEM 195 219 5 (Potential).  
FT DOMAIN 220 248 Cytoplasmic (Potential).  
FT TRANSMEM 249 270 6 (Potential).  
FT DOMAIN 271 283 Extracellular (Potential).  
FT TRANSMEM 284 308 7 (Potential).  
FT DOMAIN 309 407 Cytoplasmic (Potential).  
FT CARBOHYD 14 14 N-linked (GlcNAc. . . ) (Potential).  
FT CARBOHYD 18 18 N-linked (GlcNAc. . . ) (Potential).  
FT DISULFID 105 180 By similarity.  
FT LIPID 322 322 S-palmitoyl cysteine (Potential).  
FT SITE 197 197 Binds to antagonist CP 96345.  
FT CONFLICT 116 116 V -> C (in Ref. 4).  
FT CONFLICT 218 218 V -> I (in Ref. 4).  
SQ SEQUENCE 407 AA; 46251 MW; 2AFFD3F61B1A3041 CRC64;

Query Match 100.0%; Score 114; DB 1; Length 407;  
Best Local Similarity 100.0%; Pred. No. 2.2e-09;  
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
DB 68 NYFLVNLAFAEASMAAFNTVVNF 90  
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RESULT 4  
QYDGJ9 ID Q9DGJ9 PRELIMINARY; PRT; 309 AA.  
AC Q9DGJ9; 01-MAR-2001 (TrEMBLrel. 16, Created)  
DT 01-JUN-2002 (TrEMBLrel. 21, Last sequence update)  
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)  
DE NK-1 receptor.  
OS Bufo marinus (Giant toad) (Cane toad).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Amphibia; Batrachia; Anura; Neobatrachia; Hylaidea; Bufonidae; Bufo.  
OX NCBI\_TaxID=8386;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Small intestine muscle layer;  
RA Markus I., Liu L., Murray M., Neilan B.A., Burcher E.;  
RL Submitted (FEB-2002) to the EMBL/GenBank/DBJ databases.  
CC -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
DR EMBL; AF289083; AAG01178.3; -  
DR GO; GO:0016021; C:integral to membrane; IEA.  
DR GO; GO:0005886; C:plasma membrane; IEA.  
DR GO; GO:0004872; F:receptor activity; IEA.  
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.  
DR GO; GO:0004995; F:tachykinin receptor activity; IEA.  
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . . ; IEA.  
DR InterPro; IPR000276; GPCR\_Rhodopsn.  
DR InterPro; IPR001681; Neurokin\_receptor.  
DR Pfam; PF00003; 7tm.1; 1.  
DR PRINTS; PR00237; GPCR\_RHODOPSIN.  
DR PRINTS; PR00244; NEUROKININR.  
DR PROSITE; PS00237; G-PROTEIN\_RECEP\_F1\_1; 1.  
DR PROSITE; PS0262; G-PROTEIN\_RECEP\_F1\_2; 1.  
DR KW G-protein coupled receptor; Receptor; Transmembrane.  
SQ SEQUENCE 309 AA; 35826 MW; 5547C96D60235528 CRC64;  
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Query Match 97.4%; Score 111; DB 2; Length 309;  
Best Local Similarity 95.7%; Pred. No. 5e-09;  
Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
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QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
DB 67 NYFLVNLAFAEASMAAFNTVVNF 89  
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RESULT 5  
QYDGJ9 ID Q800X0 PRELIMINARY; PRT; 371 AA.  
AC Q800X0; 01-JUN-2003 (TrEMBLrel. 24, Created)  
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)  
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)  
DE Bufokinin receptor C.  
OS Bufo marinus (Giant toad) (Cane toad).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Amphibia; Batrachia; Anura; Neobatrachia; Hylaidea; Bufonidae; Bufo.  
OX NCBI\_TaxID=8386;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Brain;  
RA Markus I., Liu L., Neilan B.A., Murray M., Burcher E.;  
RL Submitted (FEB-2002) to the EMBL/GenBank/DBJ databases.  
CC -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
DR EMBL; AF482695; AA049326.1; -  
DR GO; GO:0016021; C:integral to membrane; IEA.  
DR GO; GO:0005886; C:plasma membrane; IEA.  
DR GO; GO:0004872; F:receptor activity; IEA.

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DR GO: 0001584; F:rhodopsin-like receptor activity; IEA.
DR GO: 0004995; F:tachykinin receptor activity; IEA.
DR GO: 0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro: IPR000276; GPCR_Rhodopsn.
DR Pfam: PF00001; 7tm_1; 1.
DR PRINTS: PR00237; GPCR_RHODOPSIN.
DR PROSITE: PS00237; G-PROTEIN_RECEP_F1_1; 1.
DR PROSITE: PS0262; G-PROTEIN_RECEP_F1_2; 1.
KW G-protein coupled receptor; Receptor; Transmembrane.
SQ SEQUENCE 371 AA; 43094 MW; 59A063A2714A75B9 CRC64;

Query Match 97.4%; Score 111; DB 2; Length 371;
Best Local Similarity 95.7%; Pred. No. 6e-09;
Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23
|||||
DB 67 NYFLVNLAFAEASMSAFNTVVNF 89

RESULT 6
AC QJFP8 PRELIMINARY; PRT; 330 AA.
DT 01-OCT-2002 (TrEMBLrel. 22, Created)
DT 01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Bufokinin receptor B.
OS Bufo marinus (Giant toad) (Cane toad).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Hylolidae; Bufonidae; Bufo.
OX NCBI_TaxID=8386;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RA Markus I., Liu L., Murray M., Neilan B.A., Burcher E.;
RL Submitted (SEP-2001) to the EMBL/GenBank/DBJ databases.
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
CC -1- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
DR EMBL: AF416731; AAM90731.1; -.
DR GO: 0016021; C:integral to membrane; IEA.
DR GO: 0005886; C:plasma membrane; IEA.
DR GO: 0004872; F:receptor activity; IEA.
DR GO: 0001584; F:rhodopsin-like receptor activity; IEA.
DR GO: 0004995; F:tachykinin receptor activity; IEA.
DR GO: 0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro: IPR000276; GPCR_Rhodopsn.
DR InterPro: IPR001681; Neurokin_receptor.
DR InterPro: IPR000046; NK1_receptor.
DR Pfam: PF00001; 7tm_1; 1.
DR PRINTS: PR00237; GPCR_RHODOPSIN.
DR PRINTS: PR01024; NEUROKININR.
DR PROSITE: PS00237; G-PROTEIN_RECEP_F1_1; 1.
DR PROSITE: PS0262; G-PROTEIN_RECEP_F1_2; 1.
KW G-protein coupled receptor; Receptor; Transmembrane.
SQ SEQUENCE 390 AA; 45091 MW; ACB6B7B9A588671 CRC64;

Query Match 97.4%; Score 111; DB 2; Length 390;
Best Local Similarity 95.7%; Pred. No. 6.3e-09;
Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23
|||||
DB 67 NYFLVNLAFAEASMSAFNTVVNF 89

RESULT 7
AC Q9W6I3 PRELIMINARY; PRT; 411 AA.
ID Q9W6I3
DR GO: 0001584; F:rhodopsin-like receptor activity; IEA.
DR GO: 0004995; F:tachykinin receptor activity; IEA.
DR GO: 0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro: IPR000276; GPCR_Rhodopsn.
DR Pfam: PF00001; 7tm_1; 1.
DR PRINTS: PR00237; GPCR_RHODOPSIN.
DR PRINTS: PR01024; NEUROKININR.
DR PROSITE: PS00237; G-PROTEIN_RECEP_F1_1; 1.
DR PROSITE: PS0262; G-PROTEIN_RECEP_F1_2; 1.
KW G-protein coupled receptor; Receptor; Transmembrane.
SQ SEQUENCE 390 AA; 45091 MW; ACB6B7B9A588671 CRC64;

Query Match 97.4%; Score 111; DB 2; Length 390;
Best Local Similarity 95.7%; Pred. No. 6.3e-09;
Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23
|||||
DB 67 NYFLVNLAFAEASMSAFNTVVNF 89

RESULT 8
AC Q7T078 PRELIMINARY; PRT; 393 AA.
ID Q7T078
DT 01-OCT-2003 (TrEMBLrel. 25, Created)
DT 01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Putative tachykinin receptor 1.
OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC Tetraodontidae; Tetraodontidae; Takifugu.
OX NCBI_TaxID=31033;
RN [1]
RP SEQUENCE FROM N.A.
RA Lagerstrom M.C., Klovins J., Fredriksson R., Fridmanis D., Haitina T.,
RA Ling M.K., Berglund M.W., Schioth H.B.;
RL Submitted (JUN-2003) to the EMBL/GenBank/DBJ databases.
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
CC -1- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
DR EMBL: AY327862; AAQ02694.1; -.
DR GO: 0016021; C:integral to membrane; IEA.
DR GO: 0004872; F:receptor activity; IEA.
DR GO: 0001584; F:rhodopsin-like receptor activity; IEA.
DR GO: 0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro: IPR000276; GPCR_Rhodopsn.
DR Pfam: PF00001; 7tm_1; 1.

Query Match 97.4%; Score 111; DB 2; Length 411;
Best Local Similarity 95.7%; Pred. No. 6.7e-09;
Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23
|||||
DB 72 NYFLVNLAFAEASMSAFNTVVNF 94

RESULT 9
AC Q7T078 PRELIMINARY; PRT; 393 AA.
ID Q7T078
DT 01-OCT-2003 (TrEMBLrel. 25, Created)
DT 01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Putative tachykinin receptor 1.
OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC Tetraodontidae; Tetraodontidae; Takifugu.
OX NCBI_TaxID=31033;
RN [1]
RP SEQUENCE FROM N.A.
RA Lagerstrom M.C., Klovins J., Fredriksson R., Fridmanis D., Haitina T.,
RA Ling M.K., Berglund M.W., Schioth H.B.;
RL Submitted (JUN-2003) to the EMBL/GenBank/DBJ databases.
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
CC -1- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
DR EMBL: AY327862; AAQ02694.1; -.
DR GO: 0016021; C:integral to membrane; IEA.
DR GO: 0004872; F:receptor activity; IEA.
DR GO: 0001584; F:rhodopsin-like receptor activity; IEA.
DR GO: 0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro: IPR000276; GPCR_Rhodopsn.
DR Pfam: PF00001; 7tm_1; 1.
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DR PROSITE; PS00237; G-PROTEIN RECEPTOR FL1; 1.  
 DR PROSITE; PS00262; G-PROTEIN RECEPTOR FL2; 1.  
 KW G-protein coupled receptor; Receptor; Transmembrane.  
 SQ SEQUENCE 393 AA; 45114 MW; 7F508031ADFD57F8 CRC64;

Query Match 96.5%; Score 110; DB 2; Length 393;  
 Best Local Similarity 91.3%; Pred. No. 9.1e-09;  
 Matches 21; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFASMAAFNTVNF 23  
 |||||:|||||:|||||:|||||:  
 DB 72 NYFLVNLAFASMAAFNTVNF 94

RESULT 9  
 NKIR\_RANCA STANDARD; PRT; 408 AA.  
 AC Q9982;  
 DT 01-NOV-1997 (Rel. 35, Created)  
 DT 01-NOV-1997 (Rel. 35, Last sequence update)  
 DT 25-OCT-2004 (Rel. 45, Last annotation update)  
 DE Substance-P receptor (SPR) (NK-1 receptor) (NK-1R) (Tachykinin receptor 1).  
 GN Name=TACR1; Synonyms=TAC1R;  
 OS Rana catesbeiana (Bull frog).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Ranidae; Rana.  
 OX NCBI\_TaxID=8400;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Sympathetic ganglion;  
 RX MEDLINE=97363687; PubMed=9219980; DOI=10.1016/S0306-4522(97)00027-4;  
 RA Simmons M.A., Brodbek R.M., Karpitskiy V.V., Schneider C.R., Neff D.P.A., Krause J.E.;  
 RA "Molecular characterization and functional expression of a substance P receptor from the sympathetic ganglion of Rana catesbeiana."  
 RL Neuroscience 79:1219-1229(1997).  
 CC -1- FUNCTION: This is a receptor for the tachykinin neuropeptide substance P. It is probably associated with G proteins that activate a phosphatidylinositol-calcium second messenger system.  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
 CC -----  
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 CC -----  
 CC EMBL; U67736; AAC05707.1; -  
 DR HSPF; P02699; 1F88.  
 DR InterPro; IPR000276; GPCR Rhodopsin.  
 DR InterPro; IPR001681; Neurokinin receptor.  
 DR InterPro; IPR000046; NK1 receptor.  
 DR Pfam; PF00001; 7tm.1.1.  
 DR PRINTS; PF00237; GPCR\_RHODOPSIN.  
 DR PRINTS; PF01024; NEUROKININR.  
 DR PRINTS; PF00244; NEUROKININR.  
 DR PROSITE; PS00237; G-PROTEIN RECEPTOR FL1; 1.  
 DR PROSITE; PS00262; G-PROTEIN RECEPTOR FL2; 1.  
 KW G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate; Phosphorylation; Transmembrane.  
 FT DOMAIN 1 32 Extracellular (Potential).  
 FT TRANSMEM 33 55 1 (Potential).  
 FT DOMAIN 56 65 Cytoplasmic (Potential).  
 FT TRANSMEM 66 87 2 (Potential).  
 FT DOMAIN 88 107 Extracellular (Potential).  
 FT TRANSMEM 108 129 3 (Potential).  
 FT DOMAIN 130 149 Cytoplasmic (Potential).  
 FT TRANSMEM 150 170 4 (Potential).  
 FT DOMAIN 171 196 Extracellular (Potential).

FT TRANSMEM 197 221 5 (Potential).  
 FT DOMAIN 222 250 Cytoplasmic (Potential).  
 FT TRANSMEM 251 272 6 (Potential).  
 FT DOMAIN 273 283 Extracellular (Potential).  
 FT TRANSMEM 284 308 7 (Potential).  
 FT DOMAIN 309 408 Cytoplasmic (Potential).  
 FT CARBOHYD 4 4 N-linked (GlcNAc...) (Potential).  
 FT CARBOHYD 9 9 N-linked (GlcNAc...) (Potential).  
 FT CARBOHYD 14 14 N-linked (GlcNAc...) (Potential).  
 FT CARBOHYD 19 19 N-linked (GlcNAc...) (Potential).  
 FT DISULFID 106 181 By similarity.  
 FT LIPID 323 S-palmitoyl cysteine (Potential).  
 SQ SEQUENCE 408 AA; 47010 MW; 300C28AE8820640E CRC64;

Query Match 96.5%; Score 110; DB 1; Length 408;  
 Best Local Similarity 91.3%; Pred. No. 9.5e-09;  
 Matches 21; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 NYFLVNLAFASMAAFNTVNF 23  
 |||||:|||||:|||||:|||||:  
 DB 69 NYFLVNLAFASMAAFNTVNF 91

RESULT 10  
 NKIR\_MOUSE STANDARD; PRT; 407 AA.  
 AC P30548;  
 DT 01-APR-1993 (Rel. 25, Created)  
 DT 01-APR-1993 (Rel. 25, Last sequence update)  
 DT 25-OCT-2004 (Rel. 45, Last annotation update)  
 DE Substance-P receptor (SPR) (NK-1 receptor) (NK-1R) (Tachykinin receptor 1).  
 GN Name=Tacr1; Synonyms=Tacr1r;  
 OS Mus musculus (Mouse).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
 OX NCBI\_TaxID=10090;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Intestine;  
 RX MEDLINE=92137253; PubMed=1370937;  
 RA Sundelin J.B., Provvedini D.M., Wahlestedt C.R., Laurell H., Pohl J.S., Peterson P.A.;  
 RA "Molecular cloning of the murine substance K and substance P receptor genes."  
 RL Eur. J. Biochem. 203:625-631(1992).  
 RN [2]  
 RP SEQUENCE OF 63-290 FROM N.A.  
 RC STRAIN=CBA; TISSUE=Brain, and T-cell;  
 RX MEDLINE=94165478; PubMed=8120392;  
 RA Cook G.A., Elliott D., Metwalli A., Blum A.M., Sandor M., Lynch R., Weinstein J.V.;  
 RA "Molecular evidence that granuloma T lymphocytes in murine schistosomiasis mansoni express an authentic substance P (NK-1) receptor."  
 RL J. Immunol. 152:1830-1835(1994).  
 CC -1- FUNCTION: This is a receptor for the tachykinin neuropeptide substance P. It is probably associated with G proteins that activate a phosphatidylinositol-calcium second messenger system.  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -1- MISCELLANEOUS: The rank order of affinity of this receptor to tachykinins is: substance P > substance K > neuromedin K.  
 CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
 CC -----  
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 CC -----  
 CC EMBL; X62934; CAA44707.1; -

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DR EMBL; L27828; AAA17892.1; -.
DR EMBL; L27826; AAA17891.1; -.
DR PIR; MG1:98475; Tacrl.
DR MGD; MG1:98475; Tacrl.
DR GO; GO:0048265; P:response to pain; IMP.
DR InterPro; IPR000276; GPCR Rhodpsn.
DR InterPro; IPR001681; Neurokin receptor.
DR InterPro; IPR000046; NK1_receptor.
DR Pfam; PF00001; 7tm.1; 1.
DR PRINTS; PRO0237; GPCRHHODPSN.
DR PRINTS; PRO1024; NEUROKININR.
DR PRINTS; PRO0244; NEUROKININR.
DR PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR PROSITE; PS0262; G_PROTEIN_RECEP_F1_2; 1.
KW G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate;
KW Phosphorylation; Transmembrane.
FT DOMAIN 1 31 Extracellular (Potential).
FT TRANSMEM 32 54 1 (Potential).
FT DOMAIN 55 64 Cytoplasmic (Potential).
FT TRANSMEM 65 86 2 (Potential).
FT DOMAIN 87 106 Extracellular (Potential).
FT TRANSMEM 107 128 3 (Potential).
FT DOMAIN 129 148 Cytoplasmic (Potential).
FT TRANSMEM 149 169 4 (Potential).
FT DOMAIN 170 194 Extracellular (Potential).
FT TRANSMEM 195 219 5 (Potential).
FT DOMAIN 220 248 Cytoplasmic (Potential).
FT TRANSMEM 249 270 6 (Potential).
FT DOMAIN 271 283 Extracellular (Potential).
FT TRANSMEM 284 308 7 (Potential).
FT DOMAIN 309 407 Cytoplasmic (Potential).
FT CARBOHYD 14 14 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 18 18 N-linked (GlcNAc...) (Potential).
FT DISULFID 105 180 By similarity.
FT LIPID 322 322 S-palmitoyl cysteine (Potential).
SQ SEQUENCE 407 AA; 46304 MW; 451B6D475A6659A0 CRC64;

Query Match 95.6%; Score 109; DB 1; Length 407;
Best Local Similarity 95.7%; Pred. No. 1.4e-08;
Matches 22; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 NYELVNLAFAEASMAAFNTVVNF 23
Db 68 NYELVNLAFAEACMAAFNTVVNF 90

RESULT 11
NK1R RAT
AC P14600; STANDARD; PRT; 407 AA.
DT 01-APR-1990 (Rel. 14, Created)
DT 01-APR-1990 (Rel. 14, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Substance-P receptor (SPR) (NK-1 receptor) (NK-1R) (Tachykinin
DE receptor 1).
GN Names=Tacr1; Synonyms=Tacr;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=91154239; PubMed=1705552;
RA Hershey A.D.; Dykema P.E.; Krause J.E.;
RT "Organization, structure, and expression of the gene encoding the rat
RT substance P receptor."
RL J. Biol. Chem. 266:4366-4374 (1991).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=90036822; PubMed=2478537;
RA Yokota Y., Sasai Y., Tanaka K., Fujiwara T., Tsuchida K.,
RA Shigemoto R., Kakiyuka A., Ohkubo H., Nakanishi S.;
RT "Molecular characterization of a functional cDNA for rat substance P
receptor.";
J. Biol. Chem. 264:17649-17652 (1989).
[3]
SEQUENCE FROM N.A.
STRAIN=Sprague-Dawley;
RX MEDLINE=90161991; PubMed=2154852;
RA Hershey A.D.; Krause J.E.;
RT "Molecular characterization of a functional cDNA encoding the rat
RT substance P receptor.";
Science 247:958-962 (1990).
[4]
REVISION TO 213.
STRAIN=Sprague-Dawley;
RA Hershey A.D.;
Submitted (FEB-1996) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: This is a receptor for the tachykinin neuropeptide
CC substance P. It is probably associated with G proteins that
CC activate a phosphatidylinositol-calcium second messenger system.
CC The rank order of affinity of this receptor to tachykinins is:
CC substance P > substance K > neuromedin K.
CC -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
-----
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CC or send an email to license@isb-sib.ch).
-----
DR EMBL; M64236; AAA42176.1; -.
DR EMBL; M64232; AAA42176.1; JOINED.
DR EMBL; M64233; AAA42176.1; JOINED.
DR EMBL; M64234; AAA42176.1; JOINED.
DR EMBL; M64235; AAA42176.1; JOINED.
DR EMBL; J05097; AAA42175.1; -.
DR EMBL; M31477; AAB59726.1; -.
DR PIR; A38692; A34357.
DR RGD; 3811; Tacrl.
DR InterPro; IPR000276; GPCR Rhodpsn.
DR InterPro; IPR001681; Neurokin receptor.
DR InterPro; IPR000046; NK1_receptor.
DR Pfam; PF00001; 7tm.1; 1.
DR PRINTS; PRO0237; GPCRHHODPSN.
DR PRINTS; PRO1024; NEUROKININR.
DR PRINTS; PRO0244; NEUROKININR.
DR PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR PROSITE; PS0262; G_PROTEIN_RECEP_F1_2; 1.
KW G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate;
KW Phosphorylation; Transmembrane.
FT DOMAIN 1 31 Extracellular (Potential).
FT TRANSMEM 32 54 1 (Potential).
FT DOMAIN 55 64 Cytoplasmic (Potential).
FT TRANSMEM 65 86 2 (Potential).
FT DOMAIN 87 106 Extracellular (Potential).
FT TRANSMEM 107 128 3 (Potential).
FT DOMAIN 129 148 Cytoplasmic (Potential).
FT TRANSMEM 149 169 4 (Potential).
FT DOMAIN 170 194 Extracellular (Potential).
FT TRANSMEM 195 219 5 (Potential).
FT DOMAIN 220 248 Cytoplasmic (Potential).
FT TRANSMEM 249 270 6 (Potential).
FT DOMAIN 271 283 Extracellular (Potential).
FT TRANSMEM 284 308 7 (Potential).
FT DOMAIN 309 407 Cytoplasmic (Potential).
FT CARBOHYD 14 14 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 18 18 N-linked (GlcNAc...) (Potential).
FT DISULFID 105 180 By similarity.
FT LIPID 322 322 S-palmitoyl cysteine (Potential).
SQ SEQUENCE 407 AA; 46366 MW; ADF885A0BF551C96 CRC64;

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RA Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,  
RA Hayashida K., Hayatsu N., Hiramoto K., Hirooka T., Hirozane T.,  
RA Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,  
RA Katoh H., Kawajiri Y., Kojima Y., Kondo S., Konno H., Koyama M., Koya S.,  
RA Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,  
RA Nishi K., Nomura K., Nunazaki R., Onno M., Ohsato N., Okazaki Y.,  
RA Saito K., Saion H., Sakai C., Sakai K., Sakazume N., Sano H.,  
RA Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,  
RA Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,  
RA Tomaru A., Taya T., Yasunishi A., Muramatsu M., Hayashizaki Y.,  
RA Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.  
RL [7]  
RN SEQUENCE FROM N.A.  
RP STRAIN=C57BL/6; TISSUE=Brain;  
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;  
RC Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,  
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,  
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,  
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haieh P.,  
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,  
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,  
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,  
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,  
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,  
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,  
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,  
RA Fahey J., Helton E., Kettman M., Madan A.C., Rodrigues S., Sanchez A.,  
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,  
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,  
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,  
RA Krzywinski M.I., Skalska U., Smalios D.E., Schnerch A., Schein J.B.,  
RA Jones S.J., Marra M.A.;  
RT "Generation and initial analysis of more than 15,000 full-length human  
RT and mouse cDNA sequences.";  
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).  
RN [8]  
RN SEQUENCE FROM N.A.  
RC STRAIN=C57BL/6; TISSUE=Brain;  
RA Strausberg R.;  
RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.  
CC 1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
CC 1- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
DR EMBL; AK038558; BAC30042.1; -.  
DR EMBL; BC075631; AAH75631.1; -.  
DR MGD; MGI:98475; Tact1.  
DR GO; GO:0016021; C:integral to membrane; TAS.  
DR GO; GO:0048265; P:response to pain; IMP.  
DR InterPro; IPR000276; GPCR\_Rhodopsn.  
DR InterPro; IPR001681; Neurokin\_receptor.  
DR InterPro; IPR000046; NK1\_receptor.  
DR Pfam; PF00001; 7tm 1; 1.  
DR PRINTS; PR00237; GPCRHOODPSN.  
DR PRINTS; PR00244; NEUROKININR.  
DR PRINTS; PR00262; G\_PROTEIN\_RECEP\_FL1\_1; 1.  
DR PROSITE; PS00237; G\_PROTEIN\_RECEP\_FL1\_1; 1.  
DR PROSITE; PS00262; G\_PROTEIN\_RECEP\_FL2\_1; 1.  
KW G-protein coupled receptor; Receptor; Transmembrane.  
SQ SEQUENCE 407 AA; 46321 MW; 451B6B875A6659A0 CRC64;

Query Match 95.6%; Score 109; DB 2; Length 407;  
Best Local Similarity 95.7%; Pred. No. 1.4e-08;  
Matches 22; Conservative 0; Mismatches 1; Indels 0; Gaps

QY 1 NYFVLNLAFAASMAAFNTVNF 23  
|||||  
DB 68 NYFVLNLAFAACMAAFNTVNF 90  
|||||

RESULT 13  
NK3R\_HUMAN  
ID NK3R\_HUMAN STANDARD; PRT; 465 AA.  
AC P29371;  
DT 01-DEC-1992 (Rel. 24, Created)

DT 01-DEC-1992 (Rel. 24, Last sequence update)  
 DT 25-OCT-2004 (Rel. 45, Last annotation update)  
 DE Neuromedin K receptor (NKR) (Neurokinin B receptor) (NK-3 receptor)  
 DE (NK-3R) (Tachykinin receptor 3).  
 GN Name=TACR3; Synonyms=NK3R, TACR3;  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 OX NCBI\_TaxID=9606;  
 RN [1]  
 RN SEQUENCE FROM N.A.  
 RC TISSUE=Brain;  
 RX MEDLINE=92246993; PubMed=1374246;  
 RA Huang R.-R.C., Cheung A.H., Mazina K.E., Strader C.D., Fong T.M.;  
 RT "cDNA sequence and heterologous expression of the human neurokinin-3  
 RT receptor.";  
 RL Biochem. Biophys. Res. Commun. 184:966-972(1992).  
 RN [2]  
 RN SEQUENCE FROM N.A.  
 RX MEDLINE=92183914; PubMed=1312036; DOI=10.1016/0014-5793(92)80107-R;  
 RA Buell G., Schulz M.P., Arkinstall S.J., Maury K., Missotten M.,  
 RA Adams N., Talabot F., Kawashima E.;  
 RT "Molecular characterization, expression and localisation of human  
 RT neurokinin-3 receptor.";  
 RL FEBS Lett. 299:90-95(1992).  
 RN [3]  
 RN SEQUENCE FROM N.A.  
 RC TISSUE=Placenta;  
 RX MEDLINE=92201186; PubMed=1312928;  
 RA Takahashi K., Tanaka A., Hara M., Nakanishi S.;  
 RT "The primary structure and gene organization of human substance P and  
 RT neurokinin K receptors.";  
 RL Eur. J. Biochem. 204:1025-1033(1992).  
 CC -1- FUNCTION: This is a receptor for the tachykinin neuropeptide  
 CC neuromedin K (neurokinin B). It is associated with G proteins that  
 CC activate a phosphatidylinositol-calcium second messenger system.  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -1- PTM: The anchoring of this receptor to the plasma membrane is  
 CC probably mediated by the palmitoylation of a cysteine residue.  
 CC -1- MISCELLANEOUS: The rank order of affinity of this receptor to  
 CC tachykinins is: neuromedin K > substance K > substance P.  
 CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
 CC -----  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
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 CC entities requires a license agreement (see <http://www.isb-sib.ch/announce/>  
 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC -----  
 DR EMBL; S86392; AAB21706.1; -.  
 DR EMBL; S86371; AAB21706.1; JOINED.  
 DR EMBL; S86382; AAB21706.1; JOINED.  
 DR EMBL; S86388; AAB21706.1; JOINED.  
 DR EMBL; S86390; AAB21706.1; JOINED.  
 DR EMBL; S86390; AAB21706.1; JOINED.  
 DR EMBL; M89473; AAA36366.1; -.  
 DR EMBL; X65172; CAA46291.1; -.  
 DR EMBL; X65173; CAA46291.1; JOINED.  
 DR EMBL; X65174; CAA46291.1; JOINED.  
 DR EMBL; X65175; CAA46291.1; JOINED.  
 DR EMBL; X65176; CAA46291.1; JOINED.  
 DR F01517; JQ1517.  
 DR HSSP; P02699; 1F88.  
 DR Genew; HGNC:11528; TACR3.  
 DR MIM; 162332; -.  
 DR GO; GO:0005887; C:integral to plasma membrane; TAS.  
 DR GO; GO:0004995; P:tachykinin receptor activity; TAS.  
 DR GO; GO:0007217; P:tachykinin signaling pathway; TAS.  
 DR InterPro; IPR002076; GPCR Rhodops.  
 DR InterPro; IPR001681; Neurokinin receptor.  
 DR InterPro; IPR001013; NK3\_receptor.  
 DR Pfam; PF00001; 7tm\_1; 1.

DR PRINTS; PR00237; GPCRRHODOPSN.  
 DR PRINTS; PR01026; NEUROKININ3R.  
 DR PRINTS; PR00244; NEUROKININP.  
 DR PROSITE; PS00437; G-PROTEIN\_RECEP\_F1\_1; 1.  
 DR PROSITE; PS00262; G-PROTEIN\_RECEP\_F1\_2; 1.  
 KW G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate;  
 KW Phosphorylation; Transmembrane.  
 KW DOMAIN 1 84 Extracellular (Potential).  
 FT TRANSMEM 85 107 1 (Potential).  
 FT DOMAIN 108 117 2 (Potential).  
 FT TRANSMEM 118 139 2 (Potential).  
 FT DOMAIN 140 159 Extracellular (Potential).  
 FT TRANSMEM 160 181 3 (Potential).  
 FT DOMAIN 182 201 3 (Potential).  
 FT TRANSMEM 202 222 4 (Potential).  
 FT DOMAIN 223 245 Extracellular (Potential).  
 FT TRANSMEM 246 270 5 (Potential).  
 FT DOMAIN 271 299 5 (Potential).  
 FT TRANSMEM 300 321 6 (Potential).  
 FT DOMAIN 322 334 Extracellular (Potential).  
 FT TRANSMEM 335 359 7 (Potential).  
 FT DOMAIN 360 465 7 (Potential).  
 FT DISULFID 158 233 By similarity.  
 FT LIPID 374 374 S-palmitoyl cysteine (Potential).  
 FT CARBOHYD 23 23 N-linked (GlcNAc...) (Potential).  
 FT CARBOHYD 50 50 N-linked (GlcNAc...) (Potential).  
 FT CARBOHYD 73 73 N-linked (GlcNAc...) (Potential).  
 FT CONFLICT 3 3 T -> I (in Ref. 2).  
 FT CONFLICT 63 63 A -> R (in Ref. 2).  
 FT CONFLICT 439 439 C -> F (in Ref. 3).  
 SQ SEQUENCE 465 AA; 52201 MW; 98E88D4BC9DBD315 CRC64;  
 Query Match 92.1%; Score 105; DB 1; Length 465;  
 Best Local Similarity 87.0%; Pred. No. 6.6e-08;  
 Matches 20; Conservative 3; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 NYFLNLVLAFAEASMAAFNTVWVF 23  
 DB 121 NYFLNLVLAFAEASMAAFNTVWVF 143  
 RESULT 14  
 NK3R RABIT STANDARD; PRT; 467 AA.  
 ID NK3R RABIT STANDARD; PRT; 467 AA.  
 AC Q975T2; 2001 (Rel. 40, Created)  
 DT 16-OCT-2001 (Rel. 40, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DT 25-OCT-2004 (Rel. 45, Last annotation update)  
 DE Neuromedin K receptor (NKR) (Neurokinin B receptor) (NK-3 receptor)  
 DE (NK-3R) (Tachykinin receptor 3).  
 GN Name=TACR3;  
 OS Oryctolagus cuniculus (Rabbit).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.  
 OX NCBI\_TaxID=9986;  
 RN [1]  
 RN SEQUENCE FROM N.A.  
 RC STRAIN=New Zealand white; TISSUE=Iris sphincter muscle;  
 RX MEDLINE=99447488; PubMed=10516642;  
 RA Medhurst A.D., Hirst W.D., Jerman J.C., Meakin J., Roberts J.C.,  
 RA Testa T., Smart D.;  
 RT "Molecular and pharmacological characterization of a functional  
 RT tachykinin NK3 receptor cloned from the rabbit iris sphincter  
 RT muscle.";  
 RL Br. J. Pharmacol. 128:627-636(1999).  
 CC -1- FUNCTION: This is a receptor for the tachykinin neuropeptide  
 CC neuromedin K (neurokinin B). It is associated with G proteins that  
 CC activate a phosphatidylinositol-calcium second messenger system  
 CC (By similarity).  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
 CC -----  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration







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OM protein - protein search, using sw model

Run on: April 19, 2005, 14:43:54 ; Search time 43 Seconds  
(without alignments)  
51.465 Million cell updates/sec

Title: US-10-665-184-24

Perfect score: 114

Sequence: 1 NYFLVNLAFASMAAFNTVNF 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR 79:\*

1: pir1:\*

2: pir2:\*

3: pir3:\*

4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	114	100.0	407	1 JQ1274	neurokinin 1 recep
2	114	100.0	407	2 S23510	neurokinin 1 recep
3	109	95.6	407	2 S20304	neurokinin 1 recep
4	109	95.6	407	2 A34357	neurokinin 1 recep
5	105	92.1	465	1 JQ1517	neurokinin 3 recep
6	101	88.6	385	2 S55524	neurokinin 3 recep
7	100	87.7	452	2 A34916	neurokinin 3 recep
8	85	74.6	440	2 A44081	kappa-type opioid
9	79	69.3	384	1 S00516	neurokinin 2 recep
10	79	69.3	398	1 JQ1059	neurokinin 2 recep
11	79	69.3	402	2 I56595	neurokinin 2 recep
12	78	68.4	384	2 I57957	neurokinin 2 recep
13	78	68.4	384	2 S20303	neurokinin 2 recep
14	78	68.4	390	2 A36737	neurokinin 2 recep
15	65	57.0	391	2 T32517	hypothetical prote
16	65	57.0	504	2 A41783	tachykinin recepto
17	62	54.4	519	2 S17783	tachykinin recepto
18	60	52.6	355	2 A42347	opsin, green-sensi
19	60	52.6	355	2 I51319	RH2 opsin - green
20	59	51.8	374	2 S28285	hypothetical prote
21	53	46.5	349	2 S28229	opsin, green-sensi
22	51	44.7	501	2 JH0447	alpha-1A-adrenergi
23	51	44.7	572	2 I39369	alpha-1A-adrenergi
24	50	43.9	351	2 E45229	opsin, green-sensi
25	49	43.0	349	2 A45229	opsin, green-sensi
26	48	42.1	560	2 A38731	alpha-1A adrenergi
27	47	41.2	332	2 JC1229	adenosine receptor
28	47	41.2	332	2 I48933	adenosine receptor
29	47	41.2	332	2 A42171	A2-adenosine recep

#### ALIGNMENTS

##### RESULT 1

JQ1274

neurokinin 1 receptor - human

N:Alternate names: NK-1 receptor; substance P receptor

C:Species: Homo sapiens (man)

C>Date: 20-Apr-2000 #sequence revision 20-Apr-2000 #text\_change 09-Jul-2004

C:Accession: A41134; JQ1274; JH0478; S21188

R:Gerard, N.P.; Garraway, L.A.; Eddy Jr., R.L.; Shows, T.B.; Iijima, H.; Paquet, J.L.; G

Biochemistry 30, 10640-10646, 1991

A:Title: Human substance P receptor (NK-1): organization of the gene, chromosome localiz

A:Reference number: A41134; MUID:92031510; PMID:1657150

A:Accession: A41134

A:Molecule type: DNA

A:Residues: 1-328, 'G', 329-332, 334-407 <GB>

A:Cross-references: UNIPROT:P25103; GB:M76675; NID:g189231

A:Note: in the authors' translation 333-Gly is shown before residue 329 and, consequentl

R:Takeda, Y.; Chou, K.B.; Takeda, J.; Sachais, B.S.; Krause, J.E.

Biochem. Biophys. Res. Commun. 179, 1232-1240, 1991

A:Title: Molecular cloning, structural characterization and functional expression of the

A:Reference number: JQ1274; MUID:92028856; PMID:1718267

A:Accession: JQ1274

A:Molecule type: mRNA

A:Residues: 1-407 <TAK1>

A:Cross-references: GB:M74290; NID:g338612; PIDN:AAA60601.1; PID:g338613

R:Hopkins, B.; Powell, S.J.; Danks, P.; Briggs, I.; Graham, A.

Biochem. Biophys. Res. Commun. 180, 1110-1117, 1991

A:Title: Isolation and characterization of the human lung NK-1 receptor cDNA.

A:Reference number: JH0478; MUID:92062052; PMID:1659396

A:Accession: JH0478

A:Molecule type: mRNA

A:Residues: 1-407 <HOP>

A:Cross-references: GB:S62045; NID:g237994; PIDN:AAB20168.1; PID:g237995

A:Experimental source: lung

A:Note: the authors translated the codon CAA for residue 31 as Glu

R:Takahashi, K.; Tanaka, A.; Hara, M.; Nakanishi, S.

Eur. J. Biochem. 204, 1025-1033, 1992

A:Title: The primary structure and gene organization of human substance P and neuromedin

A:Reference number: S21188; MUID:92201186; PMID:1312928

A:Accession: S21188

A>Status: preliminary

A:Molecule type: DNA

A:Residues: 1-407 <TAK2>

A:Cross-references: GB:X65177; NID:g36636; PIDN:CAA46292.1; PID:g825721

C:Comment: The endogenous ligand of this receptor is neurokinin 1 (substance P), one of

C:Genetics:

A:Gene: GDB:TAC1R

A:Cross-references: GDB:128977; OMIM:162323

A:Map position: 2pter-2qter

C:Superfamily: neurokinin 1 receptor

C:Keywords: G protein-coupled receptor; glycoprotein; hormone receptor; transmembrane pr

F:32-58/Domain: transmembrane #status predicted <TM1>

F:69-92/Domain: transmembrane #status predicted <TM2>

rhodopsin - giant  
hypothetical prote  
opsin, pineal glan  
5-HT4S receptor -  
serotonin 4 recept  
alpha-1-adrenergic  
alpha-1B-adrenergi  
alpha-1B adrenergi  
protein C46E10.2 (1  
hypothetical prote  
rhodopsin - Japane  
serotonin receptor  
protein T23J18.28  
opsin, blue-sensit  
cone visual pigmen  
uncharacterized co

F;110-128/Domain: transmembrane #status predicted <TM3>  
 F;149-168/Domain: transmembrane #status predicted <TM4>  
 F;195-221/Domain: transmembrane #status predicted <TM5>  
 F;249-273/Domain: transmembrane #status predicted <TM6>  
 F;286-308/Domain: transmembrane #status predicted <TM7>  
 F;14,18/Binding site: carbohydrate (Asn) (covalent) #status predicted  
 F;105-180/Disulfide bonds: #status predicted

Query Match 100.0%; Score 114; DB 1; Length 407;

Best Local Similarity 100.0%; Pred. No. 8.5e-11; Indels 0; Gaps 0;  
 Matches 23; Conservative 0; Mismatches 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23

Db 68 NYFLVNLAFAEASMAAFNTVVNF 90

RESULT 2

S23510

neurokinin 1 receptor - guinea pig

N;Alternate names: NK-1 receptor; substance P receptor

C;Species: Cavia porcellus (Guinea pig)

C;Date: 07-Apr-1994 #sequence\_revision 07-Apr-1994 #text\_change 09-Jul-2004

C;Accession: S23510; S19198

R;Gorbulev, V.; Akhundova, A.; Luzius, H.; Fahrholz, F.

Biochim. Biophys. Acta 1131, 99-102, 1992

A;Title: Molecular cloning of substance P receptor cDNA from guinea-pig uterus.

A;Reference number: S23510; MUID:92256498; PMID:1374648

A;Accession: S23510

A;Molecule type: mRNA

A;Residues: 1-407 <GOR>

A;Cross-references: UNIPROT:P30547; EMBL:X64323; NID:g49565; PIDN:CAA45608.1; PID:g49566

C;Superfamily: neurokinin 1 receptor

C;Keywords: G protein-coupled receptor; glycoprotein; transmembrane protein

F;32-55/Domain: transmembrane #status predicted <TM1>

F;69-89/Domain: transmembrane #status predicted <TM2>

F;117-128/Domain: transmembrane #status predicted <TM3>

F;149-169/Domain: transmembrane #status predicted <TM4>

F;196-217/Domain: transmembrane #status predicted <TM5>

F;250-280/Domain: transmembrane #status predicted <TM6>

F;289-308/Domain: transmembrane #status predicted <TM7>

Query Match 100.0%; Score 114; DB 2; Length 407;

Best Local Similarity 100.0%; Pred. No. 8.5e-11; Indels 0; Gaps 0;  
 Matches 23; Conservative 0; Mismatches 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23

Db 68 NYFLVNLAFAEASMAAFNTVVNF 90

RESULT 3

S20304

neurokinin 1 receptor - mouse

N;Alternate names: NK-1 receptor; substance P receptor

C;Species: Mus musculus (house mouse)

C;Date: 22-Nov-1993 #sequence\_revision 10-Nov-1995 #text\_change 09-Jul-2004

C;Accession: S20304; I56216; I73044

R;Sundelin, J.B.; Provvedini, D.M.; Wahlestedt, C.R.; Laurell, H.; Pohl, J.S.; Peterson, Eur. J. Biochem. 203, 625-631, 1992

A;Title: Molecular cloning of the murine substance K and substance P receptor genes.

A;Reference number: S20303; MUID:92137253; PMID:1370937

A;Accession: S20304

A;Status: preliminary

A;Molecule type: mRNA

A;Residues: 1-407 <SUN>

A;Cross-references: UNIPROT:P30548; GB:X62934; NID:g54206; PIDN:CAA44707.1; PID:g54207

R;Cook, G.A.; Elliott, D.; Metwalli, A.; Blum, A.M.; Sandor, M.; Lynch, R.; Weinstein, J. J. Immunol. 152, 1830-1835, 1994

A;Title: Molecular evidence that granuloma T lymphocytes in murine schistosomiasis manifest

A;Reference number: I56216; MUID:94165478; PMID:8120392

A;Accession: I56216

A;Status: preliminary; translated from GB/EMBL/DBBJ

A;Molecule type: mRNA

A;Residues: 63-290 <COO1>

A;Cross-references: GB:L27826; NID:g450286; PIDN:AAAL7891.1; PID:g480776

A;Experimental source: tissue brain

A;Accession: I73044

A;Status: preliminary; translated from GB/EMBL/DBBJ

A;Molecule type: mRNA

A;Residues: 63-290 <COO2>

A;Cross-references: GB:L27828; NID:g450290; PIDN:AAAL7892.1; PID:g480778

A;Experimental source: tissue granuloma

C;Superfamily: neurokinin 1 receptor

C;Keywords: G protein-coupled receptor; transmembrane protein

Query Match 95.6%; Score 109; DB 2; Length 407;

Best Local Similarity 95.7%; Pred. No. 5.6e-10; Indels 0; Gaps 0;  
 Matches 22; Conservative 0; Mismatches 1;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23

Db 68 NYFLVNLAFAEACMAAFNTVVNF 90

RESULT 4

A34357

neurokinin 1 receptor - rat

N;Alternate names: NK-1 receptor; substance P receptor

C;Species: Rattus norvegicus (Norway rat)

C;Date: 22-Jan-1993 #sequence\_revision 22-Jan-1993 #text\_change 09-Jul-2004

C;Accession: A38692; A34357; A40089

R;Hersthey, A.D.; Dykema, P.E.; Krause, J.E. J. Biol. Chem. 266, 4366-4374, 1991

A;Title: Organization, structure, and expression of the gene encoding the rat substance P

A;Reference number: A38692; MUID:91154239; PMID:1705552

A;Accession: A38692

A;Molecule type: DNA

A;Residues: 1-407 <HER>

A;Cross-references: UNIPROT:P14600; GB:M34751

R;Yokota, Y.; Sasai, Y.; Tanaka, K.; Fujiwara, T.; Tauchida, K.; Shigemoto, R.; Kakizuka, J. Biol. Chem. 264, 17649-17652, 1989

A;Title: Molecular characterization of a functional cDNA for rat substance P receptor.

A;Reference number: A34357; MUID:90036822; PMID:2478537

A;Accession: A34357

A;Molecule type: mRNA

A;Residues: 1-407 <YOK>

A;Cross-references: GB:J05097; NID:g207051; PIDN:AAA42175.1; PID:g207052

R;Hersthey, A.D.; Krause, J.E. Science 247, 958-962, 1990

A;Title: Molecular characterization of a functional cDNA encoding the rat substance P

A;Reference number: A40089; MUID:90161991; PMID:2154852

A;Accession: A40089

A;Status: preliminary

A;Molecule type: mRNA

A;Residues: 1-74, 'R', '76-212, 'A', '214-407 <HE2>

A;Cross-references: GB:M31477

C;Superfamily: neurokinin 1 receptor

C;Keywords: G protein-coupled receptor; glycoprotein; membrane protein

Query Match 95.6%; Score 109; DB 2; Length 407;

Best Local Similarity 95.7%; Pred. No. 5.6e-10; Indels 0; Gaps 0;  
 Matches 22; Conservative 0; Mismatches 1;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23

Db 68 NYFLVNLAFAEACMAAFNTVVNF 90

RESULT 5

JQ1517

neurokinin 3 receptor - human

N;Alternate names: neuromedin K receptor; NK-3 receptor

C;Species: Homo sapiens (man)

C;Date: 20-Apr-2000 #sequence\_revision 20-Apr-2000 #text\_change 09-Jul-2004

C;Accession: JQ1517; S20435; S21237

R;Huang, R.R.C.; Cheung, A.H.; Mazina, K.E.; Strader, C.D.; Fong, T.M. Biochem. Biophys. Res. Commun. 184, 966-972, 1992

A:Title: cDNA sequence and heterologous expression of the human neurokinin-3 receptor.

A:Reference number: JQ1517; MUID:92246993; PMID:1374246

A:Accession: JQ1517

A:Status: nucleic acid sequence not shown

A:Molecule type: mRNA

A:Residues: 1-465 <HUA>

A:Cross-references: UNIPROT:P29371; GB:M09473; NID:g1892223; PIDN:AAA36366.1; PID:g1892224

A:Experimental source: brain

R;Buell, G.; Schulz, M.F.; Arkinsteall, S.J.; Maury, K.; Missotten, M.; Adami, N.; Talabdo FEBS Lett. 299, 90-95, 1992

A:Title: Molecular characterization, expression and localisation of human neurokinin-3 cDNA

A:Reference number: S20435; MUID:92183914; PMID:1312036

A:Accession: S20435

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-2, '1', 4-62, 'R', 64-465 <BUE>

A:Cross-references: GB:S86332; NID:g246908; PIDN:AAE21706.1; PID:g246909

R;Takahashi, K.; Tanaka, A.; Hara, M.; Nakanishi, S. Eur. J. Biochem. 204, 1025-1033, 1992

A:Title: The primary structure and gene organization of human substance P and neuromedin

A:Reference number: S21188; MUID:92201186; PMID:1312928

A:Accession: S21237

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-438, 'F', 440-465 <TAK>

A:Cross-references: GB:X65172; NID:g35022; PIDN:CAA46291.1; PID:g825695

C:Comment: The endogenous ligand of this receptor is neurokinin 3 (neuromedin K), one of

C:Genetics:

A:Gene: GDB:TACR3

A:Cross-references: GDB:9599126

C:Superfamily: G protein-coupled receptor

C:Keywords: G protein-coupled receptor; glycoprotein; hormone receptor; transmembrane protein

F:83-111/Domain: transmembrane #status predicted <TM1>

F:122-147/Domain: transmembrane #status predicted <TM2>

F:160-181/Domain: transmembrane #status predicted <TM3>

F:202-221/Domain: transmembrane #status predicted <TM4>

F:247-272/Domain: transmembrane #status predicted <TM5>

F:300-321/Domain: transmembrane #status predicted <TM6>

F:333-355/Domain: transmembrane #status predicted <TM7>

F:23,50,73/Binding site: carbohydrate (Asn) (covalent) #status predicted

F:158-233/Disulfide bonds: #status predicted

Query Match 92.1%; Score 105; DB 1; Length 465;

Best Local Similarity 87.0%; Pred. No. 2,9e-09;

Matches 20; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFAEASMAAFNTVVNF 23

Db 121 NYFLVNLAFSDASMAAFNTLVNF 143

RESULT 6

S5524

neurokinin 3 receptor - mouse (fragment)

N:Alternate names: neuromedin K receptor; NK-3 receptor

C:Species: Mus musculus (house mouse)

C:Date: 01-Aug-1995 #sequence\_revision 01-Sep-1995 #text\_change 09-Jul-2004

C:Accession: S5524; I73045

R;Maroteaux, L. submitted to the EMBL Data Library, June 1995

A:Reference number: S5524

A:Accession: S5524

A:Molecule type: mRNA

A:Residues: 1-385 <MAR>

A:Cross-references: UNIPROT:P47937; EMBL:X87823; NID:g861055; PIDN:CAA61088.1; PID:g861080

R;Cook, G.A.; Elliott, D.; Metwalli, A.; Blum, A.M.; Sandor, M.; Lynch, R.; Weinstein, J. J. Immunol. 152, 1830-1835, 1994

A:Title: Molecular evidence that granuloma T lymphocytes in murine schistosomiasis manes

A:Reference number: I56216; MUID:94165478; PMID:8120392

A:Accession: I73045

A:Status: preliminary; translated from GB/EMBL/DBDJB

C;Date: 10-Sep-1999 #sequence\_revision 10-Sep-1999 #text\_change 09-Jul-2004  
C;Accession: S00516  
C;Masu, Y.; Nakayama, K.; Tamaki, H.; Harada, Y.; Kuno, M.; Nakanishi, S.  
Nature 329, 836-838, 1987  
A;Title: cDNA cloning of bovine substance-K receptor through oocyte expression system.  
A;Reference number: S00516; MUID:88039072; PMID:2823146  
A;Accession: S00516  
A;Molecule type: mRNA  
A;Residues: 1-384 <MAS>  
A;Cross-references: UNIPROT:P05363; EMBL:X06295; NID:g746; PIDN:CAA29621.1; PID:g747  
C;Superfamily: neurokinin 1 receptor  
C;Keywords: G protein-coupled receptor; glycoprotein; hormone receptor; transmembrane protein  
F;33-59/Domain: transmembrane #status predicted <TM1>  
F;70-93/Domain: transmembrane #status predicted <TM2>  
F;111-129/Domain: transmembrane #status predicted <TM3>  
F;150-169/Domain: transmembrane #status predicted <TM4>  
F;193-222/Domain: transmembrane #status predicted <TM5>  
F;252-275/Domain: transmembrane #status predicted <TM6>  
F;288-310/Domain: transmembrane #status predicted <TM7>  
F;11,19/Binding site: carbohydrate (Asn) (covalent) #status predicted  
F;106-181/Disulfide bonds: #status predicted

Query Match 69.3%; Score 79; DB 1; Length 384;  
Best Local Similarity 65.2%; Pred. No. 4.2e-05;  
Matches 15; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 69 NYFIVNLALADLCMAAFNAFNF 91  
|||||:|:|:|:|:|

RESULT 10  
neurokinin 2 receptor - human  
N;Alternate names: neurokinin A receptor; NK-2 receptor; substance K receptor (SKR)  
C;Species: Homo sapiens (man)  
C;Date: 20-Apr-2000 #sequence\_revision 20-Apr-2000 #text\_change 09-Jul-2004  
C;Accession: JQ1059; J50575; A23658; A61224  
R;Graham, A.; Hopkins, B.; Powell, S.J.; Danks, P.; Briggs, I.  
Biochem. Biophys. Res. Commun. 177, 8-16, 1991  
A;Title: Isolation and characterization of the human lung NK-2 receptor gene using rapid  
A;Reference number: JQ1059; MUID:91254341; PMID:1710456  
A;Accession: JQ1059  
A;Molecule type: DNA  
A;Residues: 1-398 <GRA1>  
A;Cross-references: UNIPROT:P21452; GB:M75105; NID:g189219; PIDN:AAB05897.1; PID:g189222  
A;Accession: J50575  
A;Molecule type: mRNA  
A;Residues: 1-398 <GRA2>  
A;Cross-references: GB:M75105; NID:g189219; PIDN:AAB05897.1; PID:g189222  
A;Experimental source: lung  
A;Note: 23-Ile and 375 His were also found  
R;Gerard, N.P.; Eddy J.; R.L.; Shows, T.B.; Gerard, C.  
J. Biol. Chem. 265, 20455-20462, 1990  
A;Title: The human neurokinin A (substance K) receptor. Molecular cloning of the gene,  
A;Reference number: A23658; MUID:91036095; PMID:2173708  
A;Accession: A23658  
A;Molecule type: DNA  
A;Residues: 1-22, 'I', 24-240, 'L', 242-398 <GER>  
A;Cross-references: GB:M60284; GB:J05680; NID:g189140  
A;Note: the authors translated the codon GGA for residue 317 as Glu  
R;Kris, R.M.; South, V.; Saltzman, A.; Felder, S.; Ricca, G.A.; Jaye, M.; Huebner, K.; K  
Cell Growth Differ. 2, 15-22, 1991  
A;Title: Cloning and expression of the human substance K receptor and analysis of its re  
A;Reference number: A61224; MUID:91175483; PMID:1848773  
A;Accession: A61224  
A;Status: not compared with conceptual translation  
A;Molecule type: mRNA  
A;Residues: 1-22, 'I', 24-293, 'F', 294-374, 'H', 376-398 <KRI>  
C;Comment: The endogenous ligand of this receptor is neurokinin 2 (substance K or neurok  
C;Genetics:  
A;Gene: GDB:TAC2R  
A;Cross-references: GDB:126367; OMIM:162321

A;Map position: 10q11-10q21  
A;Introns: 131/2; 196/2; 247/3; 313/2  
C;Superfamily: neurokinin 1 receptor  
C;Keywords: G protein-coupled receptor; glycoprotein; hormone receptor; transmembrane protein  
F;33-59/Domain: transmembrane #status predicted <TM1>  
F;70-93/Domain: transmembrane #status predicted <TM2>  
F;111-129/Domain: transmembrane #status predicted <TM3>  
F;150-169/Domain: transmembrane #status predicted <TM4>  
F;193-222/Domain: transmembrane #status predicted <TM5>  
F;252-275/Domain: transmembrane #status predicted <TM6>  
F;288-310/Domain: transmembrane #status predicted <TM7>  
F;11,19/Binding site: carbohydrate (Asn) (covalent) #status predicted  
F;106-181/Disulfide bonds: #status predicted

Query Match 69.3%; Score 79; DB 1; Length 398;  
Best Local Similarity 65.2%; Pred. No. 4.3e-05;  
Matches 15; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 69 NYFIVNLALADLCMAAFNAFNF 91  
|||||:|:|:|:|:|

RESULT 11  
neurokinin 2 receptor - guinea pig  
C;Species: Cavia porcellus (guinea pig)  
C;Date: 04-Sep-1997 #sequence\_revision 04-Sep-1997 #text\_change 09-Jul-2004  
C;Accession: I56595  
R;Aharony, D.; Little, J.; Thomas, C.; Powell, S.; Downey-Jones, M.; Graham, A.  
J. Recept. Res. 14, 399-421, 1994  
A;Title: Isolation and characterization of neurokinin A receptor cDNAs from guinea-pig li  
A;Reference number: I56595; MUID:95182423; PMID:7877137  
A;Accession: I56595  
A;Status: preliminary; translated from GB/EMBL/DDBJ  
A;Molecule type: mRNA  
A;Residues: 1-402 <RES>  
A;Cross-references: UNIPROT:Q64077; GB:S76253; NID:g913274; PIDN:AAB33553.1; PID:g913275  
C;Superfamily: neurokinin 1 receptor

Query Match 69.3%; Score 79; DB 2; Length 402;  
Best Local Similarity 65.2%; Pred. No. 4.4e-05;  
Matches 15; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
Db 69 NYFIVNLALADLCMAAFNAFNF 91  
|||||:|:|:|:|:|

RESULT 12  
neurokinin 2 receptor - hamster  
N;Alternate names: neurokinin A receptor; NK-2 receptor; substance K receptor (SKR)  
C;Species: Cricetinae gen. sp. (hamster)  
C;Date: 02-Aug-1996 #sequence\_revision 02-Aug-1996 #text\_change 19-May-2000  
C;Accession: I57957  
R;Aharony, D.; Little, J.; Thomas, C.; Powell, S.; Berry, D.; Graham, A.  
Mol. Pharmacol. 45, 9-19, 1994  
A;Title: Isolation and pharmacological characterization of a hamster urinary bladder neu  
A;Reference number: I57957; MUID:94134065; PMID:8302285  
A;Accession: I57957  
A;Status: preliminary; translated from GB/EMBL/DDBJ  
A;Molecule type: mRNA  
A;Residues: 1-384 <RES>  
A;Cross-references: GB:S68899; NID:g545230; PIDN:AAC60680.1; PID:g545231  
C;Superfamily: neurokinin 1 receptor

Query Match 68.4%; Score 78; DB 2; Length 384;  
Best Local Similarity 60.9%; Pred. No. 6.1e-05;  
Matches 14; Conservative 3; Mismatches 6; Indels 0; Gaps 0;

QY 1 NYFLVNLAFAEASMAAFNTVVNF 23  
|||||:|:|:|:|:|

Db 69 NYFIINLALADLCMAAFNATNF 91

## RESULT 13

S20303  
neurokinin 2 receptor - mouse  
N:Alternate names: neurokinin A receptor; NK-2 receptor; substance K receptor (SKR)  
C:Species: Mus musculus (house mouse)  
C:Date: 22-Nov-1993 #sequence\_revision 10-Nov-1995 #text\_change 09-Jul-2004  
C:Accession: S20303  
R:Sundelin, J.B.; Provvedini, D.M.; Wahlestedt, C.R.; Laurell, H.; Pohl, J.S.; Peterson, Eur. J. Biochem. 203, 625-631, 1992  
A:Title: Molecular cloning of the murine substance K and substance P receptor genes.  
A:Reference number: S20303; MUID:92137253; PMID:1370937  
A:Accession: S20303  
A:Status: preliminary  
A:Molecule type: mRNA  
A:Residues: 1-384 <SUN>  
A:Cross-references: UNIPROT:P30549; GB:X62933; NID:g54204; PIDN:CAA44706.1; PID:g54205  
C:Superfamily: neurokinin 1 receptor  
C:Keywords: G protein-coupled receptor; transmembrane protein

Query Match 68.4%; Score 78; DB 2; Length 384;  
Best Local Similarity 60.9%; Pred. No. 6.1e-05;  
Matches 14; Conservative 3; Mismatches 6; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFAEASMAAFNTVNF 23

||||| | : ||||| ||

Db 69 NYFIINLALADLCMAAFNATNF 91

## RESULT 14

A36737  
neurokinin 2 receptor - rat  
N:Alternate names: neurokinin A receptor; NK-2 receptor; substance K receptor (SKR)  
C:Species: Rattus norvegicus (Norway rat)  
C:Date: 22-Jan-1993 #sequence\_revision 22-Jan-1993 #text\_change 09-Jul-2004  
C:Accession: A36737  
R:Sasai, Y.; Nakanishi, S.  
Biochem. Biophys. Res. Commun. 165, 695-702, 1989  
A:Title: Molecular characterization of rat substance K receptor and its mRNAs.  
A:Reference number: A36737; MUID:90088481; PMID:2480781  
A:Accession: A36737  
A:Molecule type: mRNA  
A:Residues: 1-390 <SAS>  
A:Cross-references: UNIPROT:P16610; GB:M31838; NID:g206986; PIDN:AAA42150.1; PID:g206987  
C:Superfamily: neurokinin 1 receptor  
C:Keywords: G protein-coupled receptor; glycoprotein; membrane protein

Query Match 68.4%; Score 78; DB 2; Length 390;  
Best Local Similarity 60.9%; Pred. No. 6.2e-05;  
Matches 14; Conservative 3; Mismatches 6; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFAEASMAAFNTVNF 23

||||| | : ||||| ||

Db 69 NYFIINLALADLCMAAFNATNF 91

## RESULT 15

T32517  
hypothetical protein C49A9.7 - Caenorhabditis elegans  
C:Species: Caenorhabditis elegans  
C:Date: 29-Oct-1999 #sequence\_revision 29-Oct-1999 #text\_change 09-Jul-2004  
C:Accession: T32517  
R:Fulton, B.; Wohldmann, P.  
submitted to the EMBL Data Library, December 1997  
A:Description: The sequence of C. elegans cosmid C49A9.  
A:Reference number: Z21184  
A:Accession: T32517  
A:Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-391 <FUL>  
A:Cross-references: UNIPROT:O44148; EMBL:AF036693; PIDN:AAB88331.1; GSPDB:GN00022; CESP:

A:Experimental source: strain Bristol N2; clone C49A9  
C:Genetics:  
A:Gene: CESP:C49A9.7  
A:Map position: 4  
A:Introns: 21/3; 84/2; 128/2; 159/2; 199/3; 233/2; 263/3; 347/2  
C:Superfamily: neurokinin 1 receptor

Query Match 57.0%; Score 65; DB 2; Length 391;  
Best Local Similarity 63.2%; Pred. No. 0.0083;  
Matches 12; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Qy 1 NYFLVNLAFAEASMAAFNT 19

||||| | : ||||| ||

Db 97 NYFLNLAVADASISVFNT 115

Search completed: April 19, 2005, 14:51:46  
Job time : 44 secs

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